

Updated Native Hawaiian Consultation for Phase I Geotechnical Testing at Kuaokalā Ridge

*Ka'ena Ahupua'a, Waialua District and Keawa'ula
Ahupua'a, Wai'anae District, Island of O'ahu*

[TMK 6-9-003:001 and 8-1-001:014]

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Updated Native Hawaiian Consultation for Phase 1 Geotechnical Testing at Kuaokalā Ridge

Missile Defense Agency

Prepared By:

Elizabeth Leclerc, HDR Inc.
Jeanne Barnes, HDR Inc.

HDR INC. ROLE

Environmental
Consultant

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Abstract

HDR has prepared this summary of the Missile Defense Agency's (MDA) consultation with Native Hawaiian Organizations (NHOs) and individuals of Native Hawaiian descent for MDA's proposal to conduct geotechnical testing on Kuaokalā Ridge. The consultation was conducted in part to address the requirements of Section 106 of the National Historic Preservation Act and Hawai'i Revised Statutes Chapter 6E-42. Consultation on the proposal began on July 16, 2018 when MDA conducted its first outreach. Outreach was conducted by mail, email, and telephone. MDA held two comment periods that included a total of four in-person roundtable and town-hall style meetings. MDA continues to engage with consulting parties with periodic communications to answer questions, provide meeting minutes, and project updates. Since initiating consultation, MDA has reached out to a total of 145 parties and engaged with an additional 15 members of the public who attended consultation meetings. The MDA received verbal and written input from a total of 67 parties. Comments and consultation covered a variety of topics and themes related to the undertaking, the Area of Potential Effects (APE), historic properties, and effects from geotechnical testing. MDA also received comments outside the purview of historic preservation such as personal stances on the project and comments and questions about environmental impacts on resources other than historic properties.

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Abbreviations and Acronyms

ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effects
CFR	Code of Federal Regulations
DLNR	Department of Land and Natural Resources
DoD	Department of Defense
DOFAW	Division of Forestry and Wildlife
HAR	Hawai'i Administrative Rules
HDR-H	Homeland Defense Radar-Hawaii
KPSTS	Ka'ena Point Satellite Tracking Station
MDA	Missile Defense Agency
NHO	Native Hawaiian Organization
NHPA	National Historic Preservation Act
ROE	Right-of-Entry
SHPD	State Historic Preservation Division
TMK	Tax Map Key
TCP	Traditional Cultural Property

1. Introduction

This report summarizes the Missile Defense Agency's (MDA) consultation with Native Hawaiian Organizations (NHOs) and individuals of Native Hawaiian descent for MDA's proposal to conduct Phase I Geotechnical Testing at Kuaokalā Ridge (Tax Map Key [TMK] (1) 6-9-003:001; (1) 8-1-001:014). MDA proposes to conduct the testing to determine the constructability of the Homeland Defense Radar-Hawaii (HDR-H) project, which is a related but separate undertaking for which MDA has not yet initiated consultation. The proposed testing will occur on lands leased by Ka'ena Point Satellite Tracking Station (KPSTS) on State land managed by the Department of Land and Natural Resources (DLNR), Division of Forestry and Wildlife (DOFAW). MDA has coordinated with DLNR to obtain a Special Use Permit, Game Management Area Right-of-Entry (ROE) permit for this activity.

As a federal undertaking with the potential to affect historic properties, the Phase I Geotechnical Testing proposal is subject to Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended) and its implementing regulations at 36 Code of Federal Regulations (CFR) § 800. Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties, defined as resources listed in or eligible for listing in the National Register of Historic Places, and affords the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on the undertaking. Because the geotechnical testing will occur on State land and require a permit from DLNR, the undertaking is also subject to Hawai'i Revised Statutes 6E-42 and Hawai'i Administrative Rules (HAR) 13-284. Chapter 6E-42 requires State agencies to identify historic properties and seek a determination of effect from the State Historic Preservation Division (SHPD).

MDA initiated pre-decisional consultation with NHOs and Native Hawaiian individuals to seek their input and expertise related to historic preservation issues in the undertaking's area of potential effect (APE). Specifically, MDA requested input on the identification and evaluation of historic properties in the APE, the potential for the undertaking to affect historic properties, and MDA's plan to avoid historic properties and conduct archaeological and cultural monitoring during the undertaking. The consultation was conducted in accordance with Section 106 of the NHPA, 36 CFR § 800, Chapter 6E-42, HAR 13-284, Department of Defense Instruction 4710.03, *Consultation with Native Hawaiian Organizations*, and the ACHP's *Consultation with Native Hawaiian Organizations in the Section 106 Review Process: A Handbook* (2011).

This summary presents information about the undertaking, MDA's consultation team, outreach and consultation with NHOs and Native Hawaiian individuals; and a summary of comments and input received during the process. Only comments meaningful to the Section 106 and Chapter 6E processes for the Phase I Geotechnical Testing and received prior to December 14, 2018, are detailed in this summary. Comments outside the historic preservation review processes for the Phase I Geotechnical Testing are summarized but are not discussed in detail.

MDA initiated consultation on the Phase I Geotechnical Testing proposal on July 16, 2018. Outreach was conducted by mail, email, and telephone. MDA held two comment periods that included a total of four in-person roundtable and town-hall style meetings. The first comment period was from July 16, 2018 to August 3, 2018 with consultation meetings during the week of

July 30, 2018. MDA invited 121 NHOs and potentially interested individuals to consult during the first comment period. Eighteen additional organizations and individuals attended the consultation meetings. As a result of post-meeting community dissemination of project information, comments were received from an additional 36 members of the public through August 7, 2018.

As a result of feedback received during and after the first comment period, MDA held a second comment period from September 21, 2018 to October 24, 2018 with in-person meetings during the week of October 8, 2018. MDA reached out to an expanded list of 145 organizations and individuals based on participation and input received during the first comment period. At least an additional 15 organizations and individuals attended the consultation meetings, some of them anonymously. The MDA received verbal and written input from a total of 67 parties. MDA continues to engage with consulting parties with periodic communications to answer questions, provide meeting minutes, and project updates. MDA will continue to accept comments through implementation of the undertaking and additional consultation will occur as part of proposed archaeological and cultural monitoring.

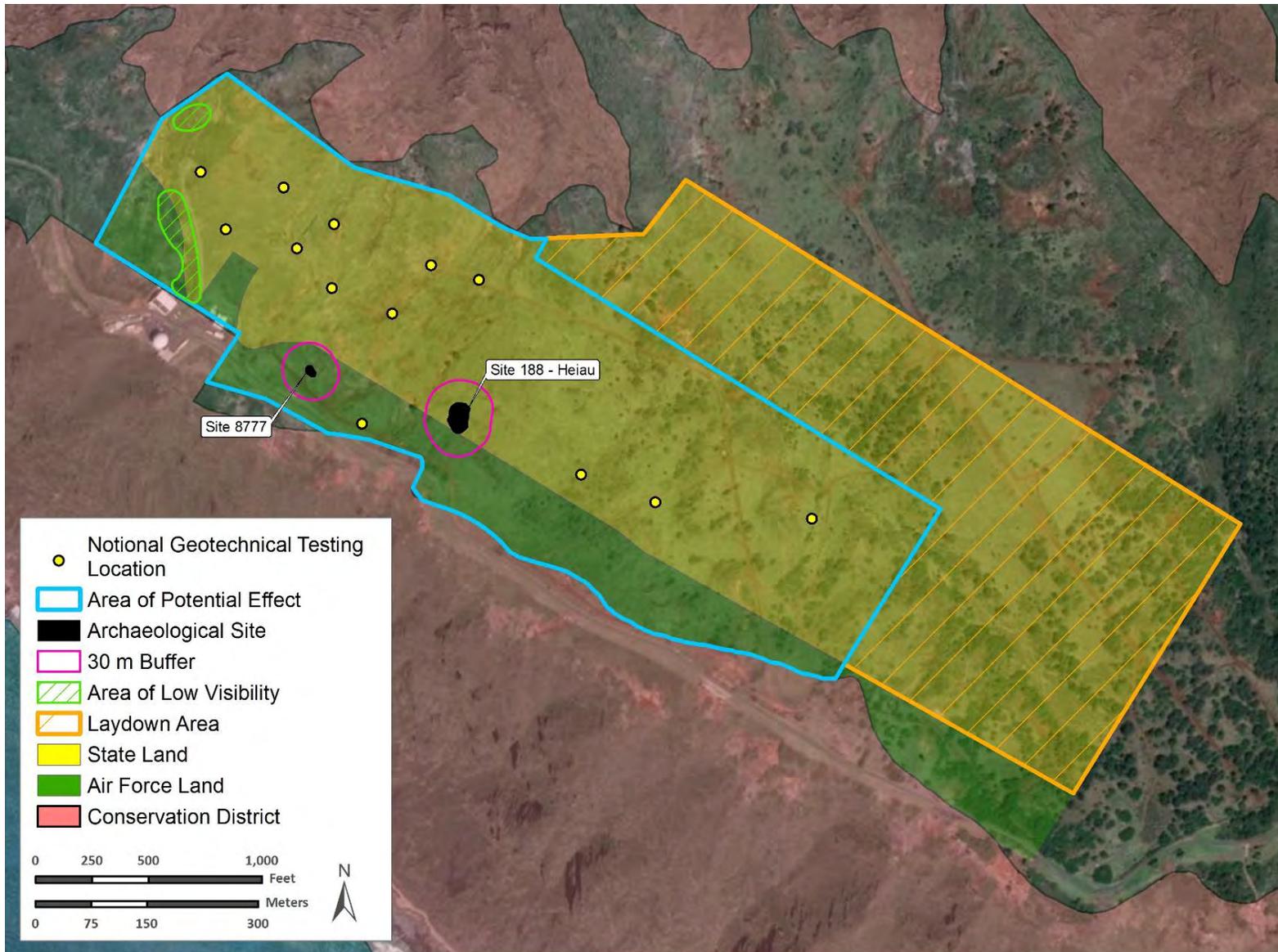
2. Description of the Undertaking and APE

The undertaking is defined as conducting Phase I Geotechnical Testing in support of potential future MDA actions and alternative selection related to the HDR-H project. The HDR-H project is a separate undertaking that is proposed at Kuaokalā Ridge. The geotechnical testing will involve the use of drill rigs to conduct 10 soil test borings and 3 auger borings. The borings will be 4 to 6 inches in diameter and up to 100 feet deep. The auger borings would be conducted using a 12-inch or smaller diameter auger, drilled to a depth of approximately 6 feet. In accordance with HAR § 13-168-16 and the DLNR Commission on Water Resource Management, the lower portion of each soil test boring will be backfilled with bentonite and the top portion backfilled with drill spoils and on-site soils. Each auger borehole will be backfilled with drill spoils. Equipment for the geotechnical testing may include the following: a truck- or track-mounted drill rig, a flat-bed support truck, a low-boy trailer, a water truck, and pick-up trucks and/or sports utility vehicles. All equipment would access the project area using the KPSTS station road.

As part of the undertaking, MDA will avoid identified historic properties during testing activities. MDA will also employ archaeological and cultural monitors during geotechnical testing to ensure known sites are protected and that any unanticipated discoveries of subsurface archaeological or cultural deposits, including burials, are properly identified and protected from further disturbance until post-review discovery procedures can be implemented. HDR has separately prepared an *Archaeological Monitoring Plan for the Geotechnical Testing at Kuaokalā Ridge* (Leclerc and Mueller 2018) which outlines measures that will be implemented to protect historic properties in the APE and document any new historic properties that may be encountered during the course of the proposed geotechnical testing activities.

MDA originally defined the APE as the approximate 160-acre parcel comprising the HDR-H Kuaokalā Ridge candidate site, shown as the combination of yellow and green shaded areas in Figure 1. Based on comments received during the first comment period, MDA revised the APE to the specific area within the candidate site where geotechnical testing activities could occur, totaling approximately 89 acres and shown in blue in Figure 1. Notional locations for proposed borings are also shown in Figure 1; however, these are subject to change within the APE.

Figure 1. Area of Potential Effect



3. Consultation Outreach and Engagement

MDA, supported by a team of contractors to assist with the consultation, conducted a robust consultation effort that reached out to a total of 145 NHOs and Native Hawaiian individuals across two comment periods. For each comment period, MDA provided parties with information about the project and requested their attendance at consultation meetings held in Waiʻanae and Wahiawā. Parties were also provided a comment form for submitting comments independently of the consultation meetings. Where possible, MDA followed up with telephone calls to parties to confirm receipt of the consultation materials and attendance at the consultation meetings. The scope of the consultation included the following elements:

- Proposed Activities (the Undertaking)
- Results of the Archaeological Inventory Survey (AIS) (McElroy and Duhaylonsod 2018)
- Identification and Evaluation of Historic Properties
- Effects on Historic Properties from Geotechnical Testing
- Approaches to Avoid or Minimize Effects on Historic Properties

During the second comment period, MDA also incorporated a summary of their responses to comments received during the first comment period. Materials related to the consultation, including the AIS report and MDA's comment-responses were posted to the project website at www.mda.mil and shared with consulting parties at the beginning of the comment period

3.1 Consultation Team

MDA's consultation was led primarily by Buff Crosby, Ph.D., MDA's environmental lead for the proposed geotechnical testing undertaking. Dr. Crosby has 25 years of experience managing public lands for multiple benefits including conservation and managing NEPA projects. She has been involved or led federal agency consultations for historic preservation compliance with indigenous communities on projects over the past 15 years. Prior to Dr. Crosby, consultation was briefly led by Mr. David Fuller, MDA's former environmental lead for the proposed undertaking. Assisting Dr. Crosby were Shari Clayton Hendrix, Tina Lemmond, and Catherine Spencer, also with MDA; and Elizabeth Leclerc and Jeanne Barnes, cultural resource specialists with HDR, Inc. These individuals variously assisted preparing materials to support the consultation such as contact lists, information packages, posters, and presentations. Team members and their project roles are listed in Table 1.

3.2 Outreach

Prior to beginning consultation, MDA identified NHOs and Native Hawaiian individuals with potential interest in historic properties in the APE from the Department of Interior's Native Hawaiian Organization Notification list, dated May 14, 2018; a report detailing a prior effort to identify and determine the concerns of NHOs regarding KPSTS (HDR|e²M 2010); and from public scoping under the National Environmental Policy Act for MDA's Homeland Defense Radar-Hawaii (HDR-H) project. The contact list was expanded after the first comment period to

include parties that attended the first set of meetings, provided comments, or whose names were provided by existing contacts. Although historic preservation issues are outside the scope of some of the organizations in the final list of 145 contacts (see Appendix A), all identified contacts were invited to consult in the event they had personal or professional interest in the APE or historic preservation issues. Although the Phase I Geotechnical Testing undertaking is separate from the proposed HDR-H project, MDA wished to ensure that participants that may be involved in the HDR-H consultation were aware of Phase I Geotechnical Testing even if they chose not to consult.

Table 1. MDA Consultation Team

Name/Title	Role
MDA	
Buff Crosby, FDO Environmental	MDA Representative
Shari Clayton Hendrix, FDO Environmental	Materials Development and Coordination
Catherine Spencer, FDO Environmental	Materials Development and Coordination
David Fuller, FDO Environmental	MDA Representative (Comment Period 1)
HDR Inc.	
Elizabeth Leclerc, Cultural Resources Specialist	Materials Development and Support
Jeanne Barnes, Cultural Resources Practice Group Lead and Architectural History Program Manager	Materials Development and Support
Emily Smith, NEPA Specialist	Meeting Logistics and Support (Comment Period 1)
ManTech, Inc.	
Meagan Ostrem, Environmental Scientist	Meeting Logistics and Support

3.3 Comment Period One

MDA developed a consultation initiation package that provided background information about the project and known historic properties in the APE. The package included a consultation participation form, which participants could use to respond to the invitation to consult, RSVP for the consultation meetings, and submit comments. The package also included a distribution list with a request for recipients to identify any other organizations or individuals they thought should be included. These materials were sent electronically via email on July 12, 2018 to 96 contacts for whom MDA had obtained email addresses. Hardcopy materials were sent on July 16, 2018 via certified mail to 118 contacts for whom mailing addresses were available. Following the mailing, MDA made phone calls to 70 contacts for which telephone numbers were available. Phone calls were made on July 23, 2018 and July 27, 2018. Appendix A provides the contact list for the undertaking with dates for each attempted correspondence. Appendix B provides copies of consultation initiation materials provided.

Of the 121 contacts, MDA received responses from 38 organizations and individuals by August 7, 2018. Responses included acknowledgement of receipt; comments; meeting RSVPs; and requests to be removed from the contact list. Comments are summarized in Section 4.

Two consultation meetings were held in Wai‘anae and Wahiawā on August 1 and 2, 2018, respectively. During the meetings, MDA presented information about the undertaking, the APE, and the results of the AIS, including identified historic properties. A fact sheet summarizing the

undertaking and findings of the AIS was provided to meeting participants, and posters displaying additional information and photographs of identified sites were circulated around the meetings. Participants were encouraged to ask questions throughout the presentation. The presentation was approximately 10 minutes without questions. The remainder of the meeting was open to questions, comments, and discussion. Participants were invited to share information and perspectives about any other historic properties in the APE; the evaluation of identified properties; effects from the undertaking on historic properties; and MDA's proposal to avoid identified sites and conduct archaeological monitoring during the geotechnical testing. MDA hired stenographers to transcribe each meeting to facilitate the recording of comments and concerns. Representatives from Keala Pono Archaeological Consulting, which conducted the AIS, were present at both meetings to answer questions about the survey. Copies of meeting materials are presented in Appendix B.

3.3.1 Wai'anae Consultation Meeting

The Wai'anae meeting was scheduled at Wai'anae High School from 6:00 pm to 8:00 pm on Wednesday, August 1, 2018. Six people attended the meeting, including representatives from the following organizations: Koa Ike/Koa Mana, Wai'anae Coast Neighborhood Board No. 24, Nanakuli-Maili Neighborhood Board No. 36, Wai'anae Economic Development Council, and Aha Moku Council – O'ahu, Wai'anae Moku. The meeting concluded at approximately 7:30 pm after participants finished providing their comments. No written comments were submitted during the meeting.

3.3.2 Wahiawā Consultation Meeting

The Wahiawā meeting was held at Wahiawā Public Library from 5:00 pm to 7:00 pm on Thursday, August 2, 2018. At least 17 participants attended the meeting; exact attendance was not recorded, as some participants requested to withhold their personal information and did not sign in. Participants represented the Ho'omanapono Political Action Committee, Kawaihapai Ohana, and Office of Hawaiian Affairs. MDA collected nine written comments during the meeting.

3.4 Comment Period Two

During and after the first comment period, MDA received feedback that the agency should conduct additional consultation and provide interested parties with additional time to submit comments. MDA held a second comment period from September 21, 2018 to October 24, 2018. Consultation packages were sent to a total of 145 parties. The package sent to existing participants invited comments and participation in additional consultation meetings in Wai'anae and Wahiawā. The package included a response to substantive comments received during the first comment period, a revised description of the APE, a summary of the AIS, and a consultation participation and RSVP form. The package referred participants to MDA's website, where information and documents related to the consultation are posted, including the draft AIS. MDA also sent a consultation package to 24 newly identified parties who attended the previous consultation meetings, submitted substantive written comments, and/or whose information was provided to MDA by other parties. This package was similar to the follow-up package sent to existing parties, but included an introductory document that described the action and identified

historic properties. Copies of consultation materials for the second comment period are provided in Appendix B.

Consultation packages were sent via priority mail on September 20, 2018 with confirmed deliveries to all but five recipients, those packages being undeliverable. The package was also sent electronically on September 21, 2018 to all contacts for whom MDA had email addresses. Following the mailing, MDA placed phone calls on October 1 and 2, 2018, to 68 recipients. A record of correspondence for the second comment period is provided in Appendix A. In addition to the 145 parties contacted by mail, email, and telephone, at least an additional 15 parties took part in the consultation meetings, some of them anonymously. MDA received responses from 39 organizations and individuals during Comment Period 2. Responses included acknowledged receipt, meeting RSVPs, and comments. Comments are summarized in Section 4.

Two consultation meetings were held in Wai'anae and Wahiawā on October 9 and 11, 2018, respectively. MDA representation included MDA leadership (Admiral Jon Hill, Deputy Director and Brigadier General Mike Guetlein, MDA Program Director) and members of the HDR-H project team (in the event consulting parties for the geotechnical testing also had questions about the HDR-H project). As during the first meetings, MDA presented information about the geotechnical testing undertaking, the APE, and the AIS. MDA also reviewed their responses to comments received during the first comment period. A fact sheet and posters with summary information accompanied the presentation. The presentation was 5-10 minutes without questions. The remainder of the meeting was open to questions, comments, and discussion. MDA requested that participants share comments about the significance of historic properties, the effects of the undertaking, and MDA's avoidance buffers and monitoring plans. MDA again hired stenographers to transcribe each meeting to facilitate the recording of comments and concerns. Copies of meeting materials are presented in Appendix B.

3.4.1 Wai'anae Consultation Meeting

The Wai'anae meeting was scheduled at the Wai'anae Neighborhood Community Center from 6:00 pm to 8:00 pm on Tuesday, October 8, 2018. At least 21 participants attended the meeting; exact attendance was not recorded, as some participants requested to withhold their personal information and did not sign in. Some participants were in addition to those sent invitations. Attendees included representatives from the following organizations: Royal Order of Kamehameha, Nanakuli-Maili Neighborhood Board No. 36, Women of Wai'anae, Office of Hawaiian Affairs, LHCC (acronym undefined), Aha Moku Council – O'ahu, Wai'anae Moku, and Mālama Makua. The meeting concluded at approximately 9:00 pm when the venue closed.

3.4.2 Wahiawā Consultation Meeting

The Wahiawā meeting was held at the Wahiawā District Park from 6:00 pm to 8:00 pm on Thursday, October 11, 2018. At least 18 participants attended the meeting; exact attendance was not recorded, as some participants requested to withhold their personal information and did not sign in. Participants represented Associated Students of the University of Hawai'i - West O'ahu, Hawaiian Civic Club of Wahiawā, Helenihi 'Ohana, Ho'omanapono Political Action Committee, Hunters Association, Kawaihapai Ohana, Mahu 'Ohana, Office of Hawaiian Affairs, and WHCC (acronym undefined). The meeting concluded at approximately 8:30 pm.

4. Comment Summary

MDA received written and verbal comments during the consultation, including the four consultation meetings. Comments covered a variety of topics and themes related to the undertaking, the APE, historic properties, and effects from geotechnical testing, as well as comments relating to project opposition, environmental impacts other than cultural resources, and impacts of MDA’s separate HDR-H project. Many meeting participants were passionate about their concerns and delivered their comments with great emotion. Comments and MDA’s responses are summarized in Table 2 where they are organized by topic. As noted in the introduction, many comments were unrelated to historic preservation issues. These issues are summarized briefly at the end of the table. Further, there was a tendency among participants at the consultation meetings to provide comments on the separate HDR-H undertaking. MDA is retaining all comments and will consider them again when consulting separately on the HDR-H undertaking.

Table 2. Comment Summary

Topic	Summary of Comments
The Undertaking and Area of Potential Effect	Kuaokalā Ridge is a sacred area; drilling on the ridge is an act of desecration and is akin to drilling in Arlington Cemetery.
	The APE is too large for the action. [Note, this comment was received during the first comment period and the APE was subsequently revised.]
	The Ka’ena Point area is steeped in mo’olelo, including those associated with the hero Maui.
	Kuaokalā Ridge and Ka’ena Point are the phallic symbol of Kāne.
Identification of Historic Properties	A new AIS is needed of the APE and a new detailed recording the Moka’ena heiau is needed. The AIS should be conducted by a Native Hawaiian firm such as Keala Pono.
	The selection of Keala Pono to conduct the archaeological inventory survey (AIS) was a good choice.
	MDA should have involved people with lineal ties to the project area in the AIS.
	A TCP study needs to be completed for the Ka’ena Point area.
Mokaena Heiau	The Moka ’ena Heiau was a site of sun worship. The path of the sun, shadows during solstices, the viewshed to the ocean, and an unobstructed view of the sky are key elements that must be kept intact for cultural purposes.
	Moka’ena Heiau is one of five temples built by the menehune, or the first people that came to these islands.
	The heiau is a temple for Kāne, and is the temple used for religious practices of the Kānenuiākea religion. This is an indigenous religion recognized by the International Association for Religious Freedom.
	The heiau was built by people from Kaua’i. The heiau is related to the interconnectedness of the two islands and the fishing grounds between them.
	Moka’ena Heiau (shrine/church) is located along the ridge. Used for time, weather, seasons, and reproduction observations, the heiau was lined up so the sun could line up and shoot from the Kona side of O’ahu, from Kapi’olani park straight through to Kuaokalā and coming through the center of the heiau.

Topic	Summary of Comments
	<p>The Moka'ena Heiau was built by a certain class of kahuna at the time of Kamehameha's conquest to provide an early warning of his impending attack on Kaua'i. Kāhuna used the heiau to send messages across the channel between O'ahu and Kaua'i, called Ka'ie'iewaho, "the vine that binds," to inform the people that something was happening. The correct name of the heiau is Moku'ena.</p>
	<p>Moka'ena Heiau is a fishing shrine, and the kū'ula at the heiau is associated with the story of Kumu Nui Akea and menehune who caught the kūmū fish (goat fish), a highly prized fish in Hawaiian culture. The shrine is associated with a fishing koa for kūmū and other productive fishing areas near Ka'ena Point. The power of the fishing shrine remains today, and is evidenced in newspaper stories from recent history of successful fishing exploits around Ka'ena Point.</p>
	<p>More research should look at Moka'ena as part of a larger cultural complex which also would include Leina a ka 'uhane and other sites between Pu'u Pu'eo and Moka'ena, including the areas up mauka and along the shoreline. There are sites within Ka'ena that have connections between mauka and makai, for example Alau and Alauiki.</p>
	<p>Moka'ena Heiau should be nominated to the National and Hawai'i Registers of Historic Places.</p>
	<p>Moka'ena Heiau is not just the rocks, it is the entire area. The area where the proposed borings are is where the mana, the spirit, the power of the heiau is.</p>
	<p>There may be subsurface remains at Moka'ena Heiau.</p>
	<p>Cows are desecrating and adversely affecting Moka'ena Heiau. The fence is broken and not effective in keeping the cows out.</p>
<p>Pu'u O Pōhaku Hāpaina (formerly designated TS 1, now designated Site 8777)</p>	<p>The correct name for site TS-1 is Pu'u O Pōhaku Hāpaina and this is the name that should be used. The name "Temporary Site 1" is offensive to Native Hawaiians. Pu'u O Pōhaku Hāpaina is associated with the construction of Moka'ena Heiau. The heiau was built by kāhuna who used the correct intonation in their oli that resonated in the pohaku (rocks) and lifted them into place with vibration. Before they could participate in the construction of the heiau, the kāhuna had to demonstrate their ability to move pohaku using their oli. They did this demonstration at Pu'u O Pōhaku Hāpaina, where they moved a rock from one end of the rock alignment to the other.</p>
<p>Other Historic Properties</p>	<p>The Leina a ka 'uhane, the place where souls on O'ahu depart for the afterlife, is located at the end of Ka'ena Point. This is a significant site and should be afforded special consideration, including separate nomination to the National and Hawai'i Registers of Historic Places. (Outside the APE)</p>
	<p>Pu'u Pu'eo is a significant hill toward the end of Kuaokalā Ridge that is associated with owls. (The hill is outside the APE.)</p>
	<p>A significant stone with a family name carved into it is located on Kuaokalā Ridge (The party has not provided a location for the stone, but the context of discussion indicates it is outside the APE. No such stone was identified during the AIS).</p>
	<p>The various cultural sites on and around Kuaokalā Ridge are part of a cultural complex/traditional cultural property (TCP).</p>
	<p>The area of Kuaokalā Ridge is a cultural landscape significant under multiple significance criteria pursuant to Hawai'i Administrative Rules 13-275-6 and is particularly significant under Criterion "e".</p>
<p>Effects on Historic Properties</p>	<p>Buffer zones of at least 100 meters should be established around each archaeological site in advance of geotechnical testing.</p>
	<p>It is impossible to avoid impacts to the heiau, no matter how far away the drilling is, because the heiau and the ridge are one.</p>
	<p>The geotechnical testing would injure the 'aina and affect familial relationships with one's mo'olelo (personal and collective history) and mo'oka'auhau (genealogy), which are embodied in this eligible traditional cultural landscape.</p>
	<p>Archaeological and cultural monitors are needed. The cultural monitors must be cultural experts.</p>

Topic	Summary of Comments
	The vehicle and derrick along with the radius of the drill (not more than 10-12 inches) will have little or no impact.
Iwi Kupuna	<p>Drilling for geotechnical testing could have a negative impact on cave systems within the mountains, many of which are the final resting place for iwi kupuna.</p> <p>There are many burials all along the ridge.</p> <p>There are no iwi kupuna on the ridge. There have been many cultural studies and no iwi have been found.</p> <p>There are no iwi kupuna on the ridge, most of it has not been culturally disturbed.</p> <p>Native Hawaiians do not need to tell MDA where the iwi are. MDA only needs to understand that the undertaking will disrupt the iwi.</p> <p>Vibrations from drilling could destroy delicate iwi.</p>
Other	<p>Opposition to the project.</p> <p>MDA needs to consider other impacts, such as traffic, noise, health effects, and effects on biological resources, including endangered species.</p> <p>MDA did not provide enough public notice or time to comment on the project.</p> <p>The project is not conforming with other Hawaiian laws, including Article 12 Section 7 of the State of Hawaii constitution, which clearly states the duty of the State and its agencies is to preserve, protect and prevent interference with the traditional and customary rights of native Hawaiians. Also, Act 50, relating to Environmental Impact Statements, which "should identify and address effects on Hawaii's culture and traditional and customary rights."</p> <p>A Cultural Impact Assessment is needed for this project.</p> <p>MDA is not following Section 106 of the NHPA. MDA must give NHOs 30 days to comment. MDA needs to consult NHOs on the definition of the APE.</p> <p>A site visit to Moka'ena Heiau is needed.</p> <p>Request a copy of the AIS and SHPD submittal.</p> <p>Soils removed from the APE during geotechnical testing should be returned after analysis.</p> <p>The remains of a Hawaiian owl will be reinterred at Moka'ena Heiau, which is situated on Pu'u Pueo overlooking Ka'ena Ahupua'a and specifically Leina Ka 'Uhane.</p> <p>Request MDA send a letter to the Bishop Museum urging continuing press of their publication entitled "Sites of Oahu"</p> <p>Request copy of the meeting presentations.</p> <p>Native Hawaiians have difficulty accessing the project area, even for gathering or religious purposes. The HDR-H project will take land away from native Hawaiians and further limit people's access to the area. Land is everything to native Hawaiians.</p> <p>The project area is an important area for hunting (gathering). Native hunting traditions are not a game and are critical to maintaining cultural identity. A loss of hunting areas would force native Hawaiians to become more westernized. Native Hawaiians want to keep their gathering traditions alive.</p> <p>MDA should give preference to information from local practitioners and lineal descendants. MDA also needs to know that local cultural protocols may differ from other areas and are more appropriate here.</p> <p>The HDR-H project is the same as the original purpose of the Moka'ena Heiau – to provide early warning of an attack. What MDA proposes to do has significance, but needs to be done appropriately.</p>

MDA is considering all comments received during this consultation and has offered the following responses to comments related to the Section 106 and Chapter 6E processes. More detailed comment responses that were provided to consulting parties are provided in Appendix C.

Definition of the APE

The original 160-acre APE was defined with reference to the Kuaokalā Ridge candidate site being considered under the separate, but related, Homeland Defense Radar – Hawai'i (HDR-H) project. As shared at previous consultation meetings, the proposed geotechnical testing that is the subject of the present consultation would only occur in a portion of this area: approximately 22 acres of existing USAF leased land and an approximate 67-acre parcel of State land where the HDR-H could be constructed. The MDA revised the APE as this 89 acre area (including USAF and State land).

Request for TCP Study

Consulting parties identified that many sites in the larger Kuaokalā Ridge and Ka'ena Point areas, including Moka 'ena Heiau, may be part of a TCP or landscape that appears to encompass all of the APE and extends outward to the surrounding ridge and coast. Consulting parties indicated the entire landscape of Ka'ena Point as having cultural significance to Native Hawaiians. At this time MDA does not have sufficient information to delineate a cultural landscape and evaluate it for significance under Federal or State law. MDA is planning to conduct a TCP survey as part of the HDR-H project that will document the extent of this TCP, its historic significance, and its historic integrity. MDA believes that identification efforts for the present undertaking are sufficient, and the possibility of a TCP or traditional cultural landscape is noted in the AIS. The heiau and Pu'u O Pōhaku Hāpaina (TS-1) are the only cultural features potentially part of this TCP that were identified within the APE, and MDA has assessed the potential for effects on these sites.

Moka'ena Heiau and Pu'u O Pōhaku Hāpaina (TS-1)

Oral history and comments about the significance of these sites has been incorporated into the AIS.

Effects on Historic Properties

The proposed Phase I Geotechnical Testing would be a discrete, short-term event that would be minimally invasive (ten 4-inch diameter borings and three 12-inch diameter borings in an 89-acre area). MDA believes a 30-meter buffer combined with archaeological and cultural monitoring is sufficient to protect the physical features of historic properties in the APE. MDA understands that geotechnical testing may impact the mana in the ridge that is a contributing quality of Moka'ena Heiau. However, MDA has determined this impact would not significantly alter the mana as a contributing quality of the heiau or the site's integrity of setting. The geotechnical testing would be temporary and intrusion into the ground would be minimal. MDA notes that many past and ongoing activities have occurred on the ridge, and consulting parties expressed that the mana at the ridge is still intact. MDA does not believe the Phase I Geotechnical Testing will have an adverse effect on the heiau or Pu'u O Pōhaku Hāpaina. MDA will invite cultural practitioners from the local area or those with familial/lineal ties to the project

area at the beginning of the geotechnical testing to do protocols and prepare the area for the testing.

Protective Buffers

MDA has reviewed input provided on the size of buffers needed to avoid identified historic properties. Some indicated no buffer would be large enough to prevent impacts, others that 100 meters would be needed. Still another NHO representative commented that the size of the equipment and borings would not affect the sites. MDA agrees the current fencing around Moka'ena Heiau is an inadequate buffer to prevent potential site impacts. MDA will install temporary construction fencing or flagging around a larger buffer to protect historic properties in the APE. MDA believes a 30-meter buffer will be sufficient to protect the sites and their surroundings.

Burials and Iwi Kupuna

MDA received mixed input regarding the potential for human burials, or iwi kupuna, in the APE. Given the proximity of the Moka'ena Heiau and some possibility for human remains and/or cultural materials, MDA is undertaking both archaeological and cultural monitoring during geotechnical testing. At a minimum, the cultural monitor will have generational or cultural affiliation with the project area, will have familiarity with cultural properties in the area, and will have sensitivity and the ability to represent and communicate with MDA on behalf of Native Hawaiians. MDA is also working with the consulting parties to identify a cultural monitor that has lineal ties to the area.

Return of Removed Soils

MDA is considering the request to return soils removed from the geotechnical borings back to the testing sites following the completion of analysis. MDA will implement this measure to the extent practicable with considerations to cost and schedule.

Section 106 Regulations

MDA is committed to following the regulations at 36 CFR § 800 for Section 106 of the NHPA. Although a commenter suggested the regulations require agencies provide NHOs a 30-day comment period, this is inaccurate. The implementing regulations of Section 106 require consultation with NHOs, but do not prescribe a time frame to the consultation as is the case with consultation with the State Historic Preservation Officer. Likewise, the regulations do not require agencies to consult with NHOs regarding the APE. However, MDA did accept and consider comments on the APE raised during this consultation.

MDA continues to accept and consider comments related to the undertaking and its effects on historic properties throughout the duration of the geotechnical testing. Should the MDA identify new historic properties or new adverse effects on historic properties, MDA shall treat these as post-review discoveries per 36 CFR § 800.13 and inform the SHPD.

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5. Conclusions

MDA reached out to a total of 145 NHOs and interested individuals with a stated interest in cultural resource issues at Kuaokalā Ridge to consult on the Phase I Geotechnical Testing undertaking. The consultation was conducted in part to address the requirements of Section 106 of the NHPA and Hawai'i Revised Statutes Chapter 6E-42 and included written communications, telephone calls, and in-person meetings. At least an additional 15 people participated in consultation meetings, some of them anonymously. MDA received responses from a total of 67 parties. MDA also received comments from members of the public, which, while not always well-informed on the undertaking or the Section 106 and Chapter 6E processes, provided helpful input for understanding the effects of the undertaking on resources of importance to Native Hawaiians and the community at large.

The consultation was successful in providing project information to participants and gathering input on key aspects of the Section 106 and Chapter 6E processes: the identification and evaluation of historic properties and the assessment of effects. This input was incorporated into the AIS report (McElroy and Duhaylonsod 2018), MDA's assessment of effects under Section 106, and DOFAW's recommendations on effects under Chapter 6E-42. MDA has concluded that under Section 106, the undertaking would have no adverse effects on historic properties; however, the agency is incorporating avoidance measures to ensure known historic properties are protected. MDA is also implementing archaeological and cultural monitoring, primarily to assess the potential for subsurface archaeological deposits in the APE but also so that if there are any unanticipated discoveries, these are appropriately handled. MDA received valuable input on these measures during consultation that was considered in the development of the archaeological monitoring plan (Leclerc and Mueller 2018). The results of this consultation will continue to inform MDA's present and future actions at Kuaokalā Ridge. Contacts with NHOs and community members generated by this consultation will also improve MDA's outreach to NHOs and consulting parties during future consultations.

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6. References Cited

HDR|e²M

2010 *Native Hawaiian Organization Consultation Project, Ka'ena Point Satellite Tracking Station, Island of O'ahu, State of Hawai'i*. Prepared for the Air Force Center for Engineering and the Environment. Prepared by HDR|e²M, Honolulu, Hawai'i.

Leclerc, Elizabeth and Andrew Mueller

2018 *Revised Archaeological Monitoring Plan for Phase I Geotechnical Testing at Kuaokalā Ridge, Ka'ena and Keawa'ula Ahupua'a, Waialua and Wai'anae District, Island of O'ahu*. Prepared for Missile Defense Agency. Prepared by HDR, Inc.

McElroy, Windy and Dietrix Duhaylonsod

2018 *REVISED DRAFT – Archaeological Survey for Geotechnical Testing at Kuaokalā Ridge, Ka'ena and Keawa'ula Ahupua'a, Waialua and Wai'anae District, Island of O'ahu, Hawai'i*. Prepared for Missile Defense Agency. Prepared by Keala Pono Archaeological Consulting, LLC, Kaneohe, HI.

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Consultation Outreach and Participation

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Table A.1. Outreach to NHOs and Native Hawaiian Individuals

Organization/Name	Comment Period 1					Comment Period 2				
	Mail	Email	Phone	Meeting(s)	Response	Mail	Email	Phone	Meeting(s)	Response
Aha Kāne	X	X	X			X	X	X		
Ahahui Siwila Hawai'i O Kapōlei	X	X	X			X	X	X		
aha kukaniloko koa mana mea ola kanaka maui	X	X		X	X	X	X		X	X
Aha Moku Council - O'ahu	X	X			X	U	X			X
Aha Wahine	X	X	X		X	X	X	X		X
Aloha First	X	X	X			X	X	X		
Associated Students of the University of Hawai'i – West O'ahu									X	
Association of Hawaiian Civic Clubs	X	X								
Aupuni O Hawai'i	X	X	X			X	X	X		
Brian Kaniela Nae'ole Naauao	X	X	X			X	X	X		
Center for Pacific Island Studies							X			
Council for Native Hawaiian Advancement	X									
Department of Hawaiian Home Lands	X		X		X					
Friends for Waiialua Town	U									
Friends of Hokule'a and Hawai'iola		U	X			X	X	X		
Friends of 'Iolani Palace	U	X	X		X	X	X	X		X
George K. Cypher 'Ohana	X		X		X	X	X	X		X
God's Country Waimanalo	X	X	X		X	X	U	X		X
Hawaiian Civic Club of Hilo	X	X								
Hawaiian Civic Club of Honolulu	X	X								
Hawaiian Civic Club of Wahiawa	X	X	X	X		X	X	X	X	X
Hawaiian Community Assets, Inc.	X	X	X			X	X	X		X
Helenihi Ohana				X	X	X	X	U	X	
Ho Ohana	X	U	X		X	X	X	X		X
Ho'okano Family Land Trust	X	X	X		X	X	X	X		
Ho'o Mana Pono Political Action Committee		X	X	X	X	X	X		X	X
Hui Huliau Inc.	X	X	X			X	X	X		X
Hui Kaleleiki Ohana	X	X	X			X	X	X		
Hui Malama I Na Kupuna O Hawaii Nei	X	X				X	X	U		
Imua Hawaii	U	X								
Ka'ala Cultural Learning Center	X	X	X			X	X	X		X
Ka'ena Cultural Practice Group				X		X	X	X		
Kahea Hawaiian-Environmental Alliance						X	X	X		
Kāko'o 'Ōiwi	X	X	X		X	X	X	X		
Kalaeloa Heritage and Legacy Foundation	X	X	U			X	X	U		
Kalihi Palama Hawaiian Civic Club	X	U	U							
Kamealoha	U	X	X		X	X	X	X		X
Kamehameha Schools	X	X	U			X	X	X		X
Kanu o ka 'Āina Learning 'Ohana	X	X	X			X	X	X		

Organization/Name	Comment Period 1					Comment Period 2				
	Mail	Email	Phone	Meeting(s)	Response	Mail	Email	Phone	Meeting(s)	Response
Kapolei Community Development Corporation	U	X	X			X	X	X		
Kauwahi 'Anaina Hawai'i Hawaiian Civic Club	U	X	U			X	X	X		
Kawaihapai Ohana	X	X		X	X	X	X		X	X
Ke One O Kakuhihewa	X	X								
King Kamehameha Hawaiian Civic Club	U	X								
Kingdom of Hawai'i	U	X	X		X	X	X	X		
Ko'olau Foundation	X	X	X		X	X	X	X		X
Ko'olaupoko Hawaiian Civic Club	X	X	X		X	X	X	X		X
Koa Ike	X	X	X	X	X	X	X	X		
Koolauloa Neighborhood Board No. 28	U	X	X		X	Removed by Request				
Kula no na Po'e Hawaii	X	X	X		X	X	X	X		
Kuloloi'a Lineage - I ke Kai 'o Kuloloi'a	X	X	X		X	Removed by Request				
Lahui Kaka'ikahi	U					X	X	X		
Ma'a 'Ohana c/o Lani Ma'a Lapilio	X	X	X			X	X	X		
Mahu Ohana	U	X	U			X	X	X		
Mainland Council Association of Hawaiian Civic Clubs	X	X	X		X	X	X	X		X
Makaha Hawaiian Civic Club	U	X	U			X	X	X		X
Mālama Mākua	X	X							X	
Malu'ōhai Residents Association	X	U	X		X	X	X	X		
Mana Health Services, Inc.	X	X	X			X	X	X		X
Marae Ha'a Koa	X	X	X			X	X	X		
Meleana Kawaiaea, LLC	X	X	X			X	X	X		
Menehune Foundation	U	X	U			X	X	U		
Mokuleia Community Association	X					X	X	X		
Na Koa Ikaika Ka Lahui Hawaii	X	X								
Na Ku'auhau 'o Kahiwakaneikopolei	U	X	X			X	X	X		
Na Ohana o Puaoi a me Hanawahine	X	X								
Nanakuli Hawaiian Homestead Association	U					X		X		
Nanakuli-Maili Neighborhood Board No. 36	X	X	X	X	X	X	X	X	X	X
Native Hawaiian Chamber of Commerce	X	X	X		X					
Native Hawaiian Church	U	X	X			X	X	X		X
Native Hawaiian Education Council	X	X	X			X	X	X		
Native Hawaiian Hospitality Association	X	X	X			X	X	X		
Nekaifes Ohana	X		X			X		X		
North Shore Neighborhood Board No. 27	X	X	X			X	X	X		
Office of Hawaiian Affairs	X	X	X	X	X	X	X		X	X
PA'I Foundation	X	X	X			X	X	X		
Pacific Justice & Reconciliation Center	U	X	X			X	X	X		X
Papa Ola Lokahi	X	X	X			X	X	X		
Partners in Development Foundation	X	X	X		X	X	X	X		X
Peahi Ohana	X	X	X			X	X	X		

Organization/Name	Comment Period 1					Comment Period 2				
	Mail	Email	Phone	Meeting(s)	Response	Mail	Email	Phone	Meeting(s)	Response
Prince Kūhiō Hawaiian Civic Club	X									
Royal Hawaiian Academy of Traditional Arts	X	X	X			X	X	X		
Royal Order of Kamehameha I	U	X	X			X	X	X	X	X
Sovereign Councils of Hawaiian Homestead Associations	X	X	X			X	X	X		
The I Mua Group	X	X	X			X	X	X		X
The Makua Group	X	X	X			X	X			
The Mary Kawena Pūku'i Cultural Preservation Society	X	X	X			X	X	X		
Wai'anae Hawaiian Civic Club	X	X	X			X	X	X		
Waialua Community Association	X	X	X		X	X	X	X		
Waialua Hawaiian Civic Club	X									
Waianae Coast Neighborhood Board No. 24	X	X	X	X	X	X	X			X
Waianae Economic Development Council	X			X	X					
Waianae Kai Homestead Association	X									
Wai'anae Moku (Aha Moku Council – O'ahu)	X	X		X	X	U	X	X	X	X
Waikīki Hawaiian Civic Club	X	X								
Waimānalo Hawaiian Homes Association	X	X	X							
Phil Akee									X	
Jon Ross Auwae							X			
Jan Becket	X	U			X	Not Consulting				
Puanani Burgess	X									
Fred Cachola	X	X								
Kāulahealani Crawford-Kapanui				X	X		X			
Thora-Jean Cuaresma				X			X			
May Rose Dela Cruz				X	X	X	X			
Albert Distajo									X	
Jonathan Doane							X			
Micah Doane							X			
Vince Dodge	X				X					
Sheila Gage				X	X		X			
Liko Glushenko									X	X
Gary Goodhue	X									
Andrew Grandinetti									X	
Vincent Higa	U									
Black Ho'ohuli	X	X								
Mickael Keola Jones									X	
Josian Jumo									X	
Theresa K.				X	X				X	X
Samson Kama									X	X
Maria Karodia				X	X		X			
Rhonda Kekua									X	

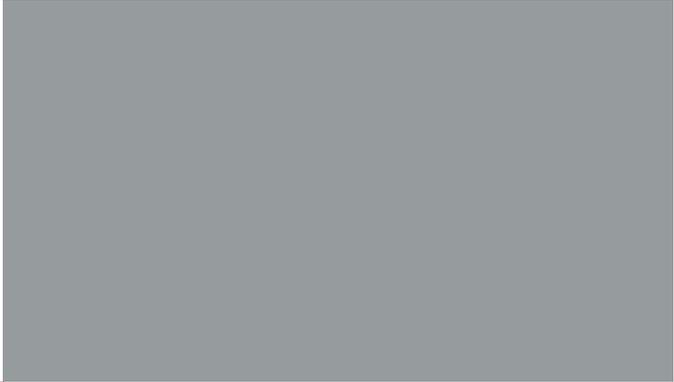
Organization/Name	Comment Period 1					Comment Period 2				
	Mail	Email	Phone	Meeting(s)	Response	Mail	Email	Phone	Meeting(s)	Response
Priscilla Lacerdo				X	X		X			
Thomas Lenchanko	X	X		X	X	X	X		X	X
Tony Laakapu Lenchanko	X	U								
Luwella Leonardi				X		X	X	X	X	
Ayesha Liquorish				X	X		X			
Tyson Loughmiller	U									
Dan Lyman	U	X								
Elton "Pokii" Magallanes								X	X	
Nanea Magallanes						X			X	
Kamuela M. Magno	X	X							X	
Dan Mahiai	U								X	
Vernell Mahiai	U	X							X	
James Mānaku						X	X	X	X	
R. Mansfield									X	
Koone Marx									X	
Bruce Moku	U	X								
Summer Kaimalia Mullins						X	X	X		X
Bryan Nakamura	U	X								
Mark Naone	U									
Coco Needham		X			X	Removed by Request				
John Neill	X									
Keone Nunes	X									
Sonny Poe							X			
Harry Robins	X									
James Sarno									X	
Ronald Schaedel	X	X				X	X			
Thomas Shirai Jr.	X	X		X	X	X	X		X	X
Joseph Simpliciano							X			
Calfrey Stautan Jr.									X	X
Vernon Vickers									X	X
Nadine Vickers									X	
Dwight Victor	X	X				X	X	X		X
Lincoln L. Victor	X	U								
Vaughn Victor	X	X		X	X	X	X	U		
Kaukaohu Wahilani							X			
Michael Wikīli									X	X
Verdeza Yap									X	
Karen Young									X	

U – Undeliverable, unclaimed, or unable to reach/leave voicemail by phone

Table A.2. Consultation Meeting Attendance

Representative	Organization
Wai'anae Meeting on August 1, 2018	
Glen Kila	Koa Ike/Koa Mana
Cynthia Rezentes	Nanakuli-Maili Neighborhood Board
Joseph Lapilio	Wai'anae Economic Development Council, Self
Sharlette Poe	Wai'anae Coast Neighborhood Board
Hanale Hopfe	Aha Moku Council – O'ahu, Wai'anae Moku
Vaughn Victor	Self
Wahiawā Meeting on August 2, 2018	
DeMONT Conner	Ho'o Mana Pono Political Action Committee
Thomas Shirai	Kawaihapai Ohana, Self
Lauren Morawski	Office of Hawaiian Affairs
Thomas Lenchanko	Self
Kristin Doyle	Self
Thora-Jeane P. Cuaresma	Self
May Rose Dela Cruz	Self
Priscilla Lalerdo	Self
Noelani DeVincent	Self
Jo-Lin Kalimapau	Self
Maria Kerodia	Self
Ayesha Liquirish	Self
Sheila Gage	Self
Winona Aguero	Self
Al Sabagala	Self
Kaulahealani Crawford-Kapanui	Self
(Anonymous)	Self
Wai'anae Meeting on October 9, 2018	
William J. DeLude	Royal Order of Kamehameha - Moku 'O Kapuaiwa
Rocky Naeole	Royal Order of Kamehameha - Moku 'O Kapuaiwa
James "Kimo" Hyde	Royal Order of Kamehameha - Moku 'O Kapuaiwa
Cynthia Rezentes	Nanakuli-Maili Neighborhood Board
Karen Young	Women of Wai'anae
Lauren Murawski	Office of Hawaiian Affairs
Danni Nelson	LHCC (acronym undefined)
Hanale Hopfe	Aha Moku Council – O'ahu, Wai'anae Moku
Sparky Rodrigues	Mālama Makua
Luwella Leonardi	Self
Verdeza Yap	Self
Samson Kama	Self
James K. Mānaku	Self
Vernon Vickers	Self

Representative	Organization
Nadine Vickers	Self
Michael Wikīli	Self
James Sarno	Self
Liko Glushenko	Self
Albert Distajo	Self
Josian Jumo	Self
Thomas Lenchanko	Self
Wahiawā Meeting on October 11, 2018	
Koone Marx	Mahu ‘Ohana
Rawley Riccio	Associated Students of the University of Hawaii – West O‘ahu
Noelani DeVincent	Hawaiian Civic Club of Wahiawā, Helenihi ‘Ohana
Amy Perruso	Hawaiian Civic Club of Wahiawā
R. Mansfield	WHCC (acronym undefined)
Lauren Murawski	Office of Hawaiian Affairs
Calfrey Stautan Jr.	Hunters Association
Jo-Lin Lenchanko Kalimapau	Hawaiian Civic Club of Wahiawā
Hildegard Akee	Hawaiian Civic Club of Wahiawā
Thomas Shirai	Self, Kawaihapai ‘Ohana
DeMONT Conner	Ho‘omanapono Political Action Committee
Andrew Grandinetti	Self
Luwella Leonardi	Self
Thomas Lenchanko	Self
Theresa K.	Self
Rhonda Kekua	Self
Michael Keola Jones	Self
Phil Akee	Self



B

Consultation Materials: Comment Period 1

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B.1 Consultation Initiation Package



DEPARTMENT OF DEFENSE
MISSILE DEFENSE AGENCY
5700 18TH STREET
FORT BELVOIR, VIRGINIA 22060-5573

July 12, 2018

Native Hawaiian Organization
O'ahu, Hawaii

Dear Sir or Madam:

The Missile Defense Agency (MDA) proposes to conduct geotechnical testing at a parcel of land on Kuaokalā Ridge to determine constructability and support site selection for future MDA projects. As a federal undertaking with potential to affect historic properties, the proposed geotechnical testing is subject to Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 Code of Federal Regulations Section 800. The parcel is on State land managed by the Department of Forestry and Wildlife (DOFAW), and the MDA must obtain a right-of-entry (ROE) permit to conduct the geotechnical testing. The project is also subject to Hawaii Revised Statutes (HRS) Chapter 6E, Historic Preservation. Under these laws, the MDA must identify significant historic properties, determine whether the undertaking will adversely affect historic properties, and avoid, minimize, or mitigate any adverse effects.

The MDA invites you to consult on the proposed geotechnical testing under Section 106 of the NHPA and HRS Chapter 6E. Please be aware the geotechnical testing at Kuaokalā Ridge is a separate undertaking from the Homeland Defense Radar-Hawaii (HDR-H) project, for which the MDA is preparing an Environmental Impact Statement under the National Environmental Policy Act. The assessment of effects for the geotechnical testing will be separate from the HDR-H project, as well as any mitigations identified. The geotechnical actions are being treated separately in part because DOFAW's issuance of a ROE permit for geotechnical testing is separate from any actions the agency may take on behalf of the HDR-H project. The MDA must complete the geotechnical testing before the site selection process for HDR-H can be completed. When the geotechnical testing results are available and the proposed HDR-H project is better defined, the MDA will conduct separate Section 106 and Chapter 6E consultation on the details of the construction and operation of the proposed HDR-H project.

Background information enclosed with this letter includes the proposed geotechnical testing, the area of potential effects (APE), a brief historic context of the area, previous cultural resource studies, and known historic properties. One site has been identified in the APE, the Moka'ena Heiau, which we understand to be a very important traditional resource to Native Hawaiians. The MDA will avoid this site and maintain a buffer around it during the geotechnical testing. We request your comments related to the significance of the Moka'ena Heiau and any other historic properties in the APE, as well as your comments on the potential effects geotechnical testing might have on these properties.

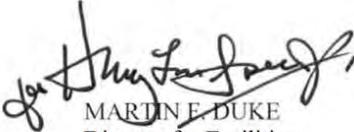
We hope you will join us at one of two consultation meetings in Wai‘anae and Wahiawā on August 1 and August 2, 2018, respectively. During the meetings, we will present information about the undertaking, APE, and historic properties. We will answer your questions and listen to your comments about historic properties and potential effects. The MDA is currently organizing a Phase I Archaeological Inventory Survey of the APE. We hope to discuss the results of that survey during the meeting, and hear your thoughts on any historic properties that might be identified through the survey. Meeting information is below:

6:00 pm to 8:00 pm, Wednesday, August 1, 2018
Wai‘anae High School, 85-251 Farrington Hwy, Wai‘anae, HI

5:00 pm to 7:00 pm Thursday, August 2, 2018
Wahiawā Public Library, 820 California Ave, Wahiawā, HI

We look forward to working with you to ensure historic properties and your cultural resource concerns are given due consideration in our geotechnical testing proposal. If you plan to attend one of the consultation meetings, please fill out and return the enclosed Consultation Participation form by July 23, 2018. Otherwise, please provide your comments by August 3, 2018 so we have adequate time to consider them as we consult with the State Historic Preservation Division and prepare to conduct the testing. You may return the form and your comments to Mr. David Fuller, MDA Deployment Environmental Officer at david.fuller@mda.mil or: Missile Defense Agency/FDOE, Attn: David Fuller, Bldg 5224 Martin Rd, Redstone Arsenal, AL 35898. You may also contact Mr. Fuller at 256-450-4744 or our Cultural Resource contacts, Elizabeth Leclerc at 720-633-7088 and Jeanne Barnes at 540-314-5367, if you have any questions. We also request that you review the enclosed list of recipients and inform us if you know of other organizations or individuals we should invite to consult.

Sincerely,



MARTIN E. DUKE
Director for Facilities
and Deployments

Enclosures:

1. Background Information on the Geotechnical Testing at Kuaokalā Ridge
2. Consultation Participation Form
3. Mailing List

**BACKGROUND INFORMATION ON THE
GEOTECHNICAL TESTING AT KUAOKALĀ
RIDGE**

FOR SECTION 106 AND CHAPTER 6E CONSULTATION

MISSILE DEFENSE AGENCY

JULY 2018

ENCLOSURE 1

Geotechnical Testing at Kuaokalā Ridge
Background Information

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3. SUMMARY TRADITIONAL AND HISTORIC CONTEXT3
4. KNOWN HISTORIC PROPERTIES IN THE APE.....4
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Figure 1. Project Area2

Geotechnical Testing at Kuaokalā Ridge
Background Information

ABBREVIATIONS AND ACRONYMS

APE	Area of Potential Effect
DLNR	Department of Land and Natural Resources
KPSTS	Ka'ena Point Satellite Tracking Station
LCA	Land Commission Award
MDA	Missile Defense Agency
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
ROE	Right-of-Entry
TMK	Tax Map Key

Geotechnical Testing at Kuaokalā Ridge
Background Information

1. Introduction

Missile Defense Agency (MDA) proposes to conduct geotechnical testing on Kuaokalā Ridge, Ka'ena Ahupua'a, Waialua District and Keawa'ula Ahupua'a, Wai'anae District, Island of O'ahu (Tax Map Key [TMK] 6-9-3:2 and 8-1-1:14) (Figure 1). MDA proposes to conduct the testing to determine the constructability and to support site selection for possible future MDA projects at the location. The testing will consist of 10 soil test borings 4 to 6 inches in diameter and up to 100 feet deep and 3 auger borings up to 12 inches in diameter and 6 feet deep. The testing will occur adjacent to Ka'ena Point Satellite Tracking Station (KPSTS) on State land managed by the Department of Land and Natural Resources (DLNR), Division of Forestry and Wildlife. MDA is coordinating with DLNR to obtain a Right-of-Entry (ROE) permit for the testing.

As a federal undertaking with the potential to affect historic properties, the geotechnical testing is subject to Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended) and its implementing regulations in 36 Code of Federal Regulations § 800. Section 106 of the NHPA requires agencies to assess the effects of their undertakings on historic properties, defined as resources listed in or eligible for listing in the National Register of Historic Places (NRHP), and affords the Advisory Council on Historic Preservation an opportunity to comment on the undertaking. Because the geotechnical testing will occur on State land and require a ROE permit from DLNR, the undertaking is also subject to Hawai'i Revised Statutes 6E and Hawai'i Administrative Rules 13-275. Chapter 6E requires State agencies to identify historic properties and seek a determination of effect from the State Historic Preservation Division (SHPD).

This document describes the undertaking, defines the Area of Potential Effect (APE), and identifies historic properties in the APE known from previous cultural resources work. MDA, upon request of the SHPD, is preparing to conduct a pedestrian archaeological inventory survey (AIS) of the APE. MDA also intends to conduct archaeological monitoring during the geotechnical testing.

2. Description of the Undertaking and Area of Potential Effect

The undertaking is defined as obtaining a ROE permit and conducting geotechnical testing in support of potential future MDA actions and alternative selection. The geotechnical testing will consist of approximately 10 soil test borings and 3 auger borings in an approximate 160-acre area that overlaps the Kuaokalā Game Management Area and KPSTS. MDA anticipates that all geotechnical testing will occur on State land. The borings will be 4 to 6 inches in diameter and up to 100 feet deep. The auger borings would be conducted using a 12-inch or smaller diameter auger, drilled to a depth of approximately 6 feet. Following each test boring, the lower portion of the boring will be backfilled with a cement-bentonite grout, and the top portion backfilled with drill spoils and on-site soils. Each auger borehole would be backfilled with drill spoils. The APE is the 160-acre parcel where testing will occur, and is shown in Figure 1.

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Geotechnical Testing at Kuaokalā Ridge
Background Information

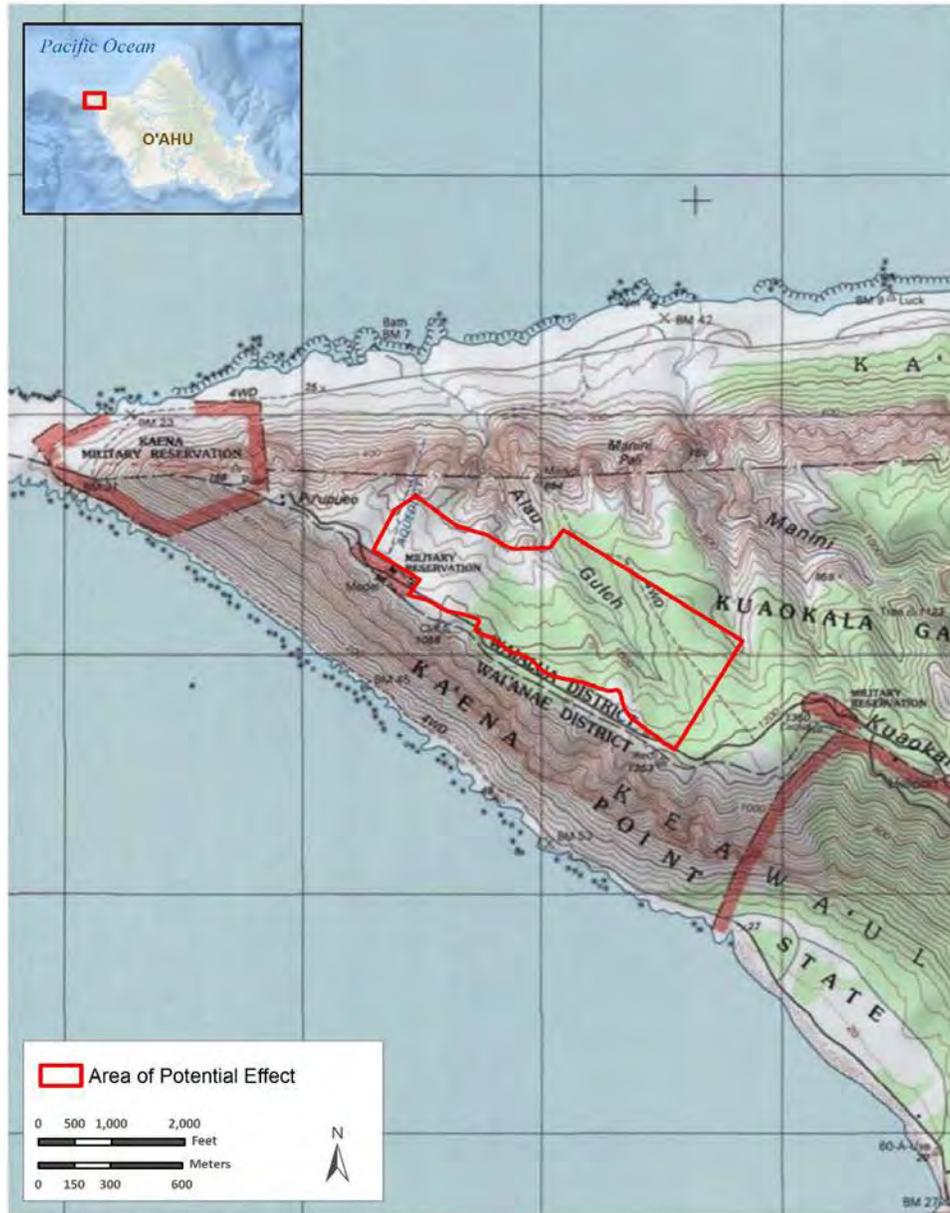


Figure 1. Project Area

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3. Summary Traditional and Historic Context

The project area is in a landscape rich in traditional history with many *mo'olelo* related to nearby place names and events. Ka'ena Point, northwest of the project area, is the nearest location on O'ahu to Kaua'i. This proximity is notable as Kaua'i is the only island in the Hawaiian chain that is not visible from another island except on exceptionally clear days (Tomonari-Tuggle 2008:21). Ka'ena Point is the site of several legends connecting O'ahu and Kaua'i. In another link between the islands, the *heiau* Moka'ena and Kuaokalā are said to have been built by people from Kaua'i (McAllister 1933:127), although Fornander (1917) attributes their construction to the *menehune*, a mythical race of beings. The location of the latter *heiau*, which shares its name with the Kuaokalā Ridge, is unknown. Ka'ena Point and Pu'u Pueo on Kuaokalā Ridge are traditionally associated with *leina a ka 'uhane*, or 'a leaping place of the spirit,' where spirits travel and leap into the afterlife. Ka'ena Ahupua'a has been described as poor in terrestrial resources but rich with ocean resources. Handy and Handy (1972:467) note:

"It was here that the ancient chief Kawelo distinguished himself as a fisherman; and there are also many stories of the culture hero Maui as a great fisherman identified with this area. Much of the coast hereabouts is marked by steeply built-up, shifting sand dunes and treacherously rough seas, which probably accounts for the acclaim connected with particular fishing exploits of the past."

The archaeological history of the area demonstrates that the area around Ka'ena Point was settled relatively late compared to most of O'ahu and was probably used only on a semi-permanent or seasonal basis until the 1700s. There is little archaeological data specific to the Ka'ena region. Radiocarbon dating of materials from a probable fishing camp at Ka'ena Point (Site 50-80-03-1183) yielded a date calibrated within a two-sigma range of A.D. 1453 to 1644 (Dagher 1994).

The earliest European account of the project area was made by Captain George Vancouver in 1793, who described the Wai'anae coast as "nearly destitute of verdure, cultivation, or inhabitants, with little variation all the way to the west point of the island" (McAllister 1933:112). Settlement of the region remained low through the nineteenth century. As a result of the Great Māhele, most of the lands surrounding the project area were turned over to the government except Māhele Award 14, a 210-acre parcel in Keawa'ula given to La'amaikahiki, and two land commission awards (LCAs) on the coastal flat of Keawa'ula awarded to Kaio (LCA 5557) and Lonoahiilei (LCA 5999). Government lands were subsequently leased for commercial ranching. In the 1920s entrepreneur C. D. Pringle attempted to establish a pineapple plantation on the Kuaokalā plateau northeast of the project area. The project did not succeed and the area reverted to cattle ranching.

Ka'ena Point Military Reservation was created at Ka'ena Point and part of Kuaokalā Ridge in July 1923 under Executive Order 4679. In April 1958, the U.S. Air Force acquired the site for KPSTS from the State of Hawai'i under a long-term lease. The station participated in several Department of Defense space programs throughout the Cold War, including the Discoverer Satellite Program (Tomonari-Tuggle 2008:27). Today the installation occupies 153 acres leased from the State of Hawai'i and private landowners, including easements and rights-of-way.

4. Known Historic Properties in the APE

MDA reviewed the KPSTS Integrated Cultural Resources Management Plan (ICRMP) (Tomonari-Tuggle 2008) and consulted records at the SHPD library in Kapolei, O'ahu to identify previous cultural resource studies and known historic properties in and around the APE. A reconnaissance level survey was completed at KPSTS and adjacent areas in 1987 (Hammatt and Borthwick 1987). This survey located one archaeological resource in the APE, Site 188, Moka'ena Heiau, which was first recorded by J. Gilbert McAllister during his island-wide reconnaissance in 1929 (McAllister 1933). Additional archaeological assessments and project-specific AISs have since been completed at and around KPSTS (Tomonari-Tuggle 2008); however, none of these included new reconnaissance or inventory survey in the APE, although an archaeological assessment in 2007 did produce updated documentation of Site 188 (Rasmussen 2007).

Hammatt and Borthwick's 1987 survey inventoried 300 to 400 acres of land on both sides of the station road along Kuaokalā Ridge. The survey area extended between 300 and 2,000 feet northeast of the road to include "any relatively gentle slope area that may eventually be part of facilities expansion" (Hammatt and Borthwick 1987:27). It is unclear how much of the APE was covered during the survey, but its location and topography suggests most, if not all, of the APE may have been surveyed. Hammatt and Borthwick recorded nine sites, of which only Site 188 is in the APE. The next nearest site recorded on KPSTS is approximately 2,300 feet southeast.

Site 188 is eligible for listing in the NRHP and is culturally significant as a traditional Hawaiian ceremonial site. The *heiau* is the highest of any on O'ahu. Hammatt and Borthwick described the *heiau* as:

"a rectangular terraced platform structure...which incorporates a large in situ boulder outcrop. The structure measures 35 feet (E/W) by 78 feet (N/S) and is divided into 4 distinct terrace levels...approximately 100 feet downslope (north) of the site are two adjoining, relatively level soil areas. The soil areas are about 30 feet square and though their appearance is that of large soil terraces, they are more probably just erosional features" (Hammatt and Borthwick 1987:38).

Hammatt and Borthwick (1987) conducted test excavations consisting of four test units around the perimeter of the structure at Site 188. Three test units measured 50 square centimeters and one test unit was 1 square meter. The excavation units were placed 2.7 to 9 meters from the edge of the structure. No artifacts were recovered; however, a possible buried rock alignment or paving and charcoal flecking were observed in excavations north-northeast and west of the feature.

Although the Moka'ena Heiau is outside the KPSTS lease area and installation boundary, the ICRMP recommends protective measures, including a protective buffer, preservation of view planes to the north and east, and monitoring of development in the immediate area. The *heiau* is enclosed in protective fencing that is in extreme disrepair. MDA will avoid the area around the *heiau* during geotechnical testing, to be enforced by archaeological monitors.

Geotechnical Testing at Kuaokalā Ridge
Background Information

There are no historic buildings in the APE. Several buildings are immediately west of the APE on KPSTS. Two of these, Buildings 35 and 39006, are eligible for listing in the NRHP.

5. References Cited

Dagher, Catherine A. 1994. Ka'ena Fishing Camp Site Synopsis: 50-80-03-1183. February 7.

Fornander, Abraham. 1917. *Fornander Collection of Hawaiian Antiquities and Folk-lore*. Volume IV, Part III. B.P. Bishop Museum Memoirs. Bishop Museum Press, Honolulu.

Hammatt, Hallett H. and Douglas K. Borthwick. 1987. *Archaeological Survey and Testing at the Ka'ena Point Satellite Tracking Station, Wai'anae and Waialua, O'ahu*. Prepared for U.S. Army Corps of Engineers, Pacific Ocean Division. Prepared for R. M. Towill, Inc. Prepared by Cultural Surveys Hawaii, Kailua, Hawai'i.

McAllister, J.G. 1933. *Archaeology of Oahu*. B. P. Bishop Museum Bulletin Number 104. Bishop Museum Press. Honolulu.

Rasmussen, Coral. 2007. *Archaeological Assessment at Kaena Point Satellite Tracking Station (KPSTS), O'ahu, Hawai'i*. Prepared for EA Engineering, Science, and Technology, Inc., Honolulu. Prepared by International Archaeological Research Institute, Inc., Honolulu.

Tomonari-Tuggle, M.J. 2008. *Integrated Cultural Resources Management Plan, Kaena Point Satellite Tracking Station, Hawaii*. Prepared for EA Engineering, Science, and Technology, Inc., Honolulu. Prepared by International Archaeological Research Institute, Inc., Honolulu. Updated September 11, 2009.

U.S. Air Force. 2017. *Final Environmental Assessment Addressing the Repair, Upgrade, or Replacement of the Dillingham Waterline for Kaena Point Satellite Tracking Station, Oahu, Hawaii*. Updated from the October 2015 version to 2017.

Geotechnical Testing at Kuaokalā Ridge
Background Information

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MISSILE DEFENSE AGENCY



<https://www.mda.mil>
mda.info@mda.mil

Consultation Participation

Geotechnical Testing at Kuaokalā Ridge

Thank you for your interest in consulting on the Missile Defense Agency's (MDA) proposal to conduct geotechnical testing at Kuaokalā Ridge. Please complete this form and return to:

David Fuller
Deployment Environmental Officer
Environmental Division
Missile Defense Agency
BLDG 5224 Martin Rd.
Redstone Arsenal, AL 35898
david.fuller@mda.mil

Consultation and Meeting Participation

- I accept MDA's invitation to consult on the proposal to conduct Geotechnical Testing at Kuaokalā Ridge. I wish to attend the following consultation meeting (*select one, note that meeting participation does not require an RSVP*):
- Wai'anae: 6:00 pm to 8:00 pm, August 1, 2018, Wai'anae High School, 85-251 Farrington Hwy, Wai'anae, HI
 - Wahiawā: 5:00 pm to 7:00 pm, August 2, 2018, Wahiawā Public Library, 820 California Ave, Wahiawā, HI
 - I do not plan to attend either meeting but still wish to participate in the consultation
- I do not wish to participate in consultation on the proposal to conduct Geotechnical Testing at Kuaokalā Ridge (*note you may request to re-join the consultation at any time*).

Contact Information

Please take this opportunity to update your contact information with us, including your email address and phone number.

Name: (First) _____ (Middle) _____ (Last) _____

Address: (Street) _____ (City/Town) _____ (State) _____

Phone: _____ Email Address: _____

(continued on reverse)

ENCLOSURE 2

Comments

Please use the space below to submit any comments you have at this time regarding the geotechnical testing proposal, cultural resources in the area of potential effects, and potential effects from geotechnical testing on cultural resources.

Missile Defense Agency
Proposed Geotechnical Testing at Kuaokalā Ridge
Consultation List as of July 12, 2018

Organizations

'Aha Kāne	Kanu o ka 'Āina Learning 'Ohana
Aha Kukaniloko Koa Mana mea ola kanaka mauli	Kapolei Community Development Corporation
Aha Wahine	Kauwahi 'Anaina Hawai'i Hawaiian Civic Club
'Ahahui Siwila Hawai'i O Kapōlei	Kawaihapai Ohana
Aloha First	Ke One O Kakuhihewa
Association of Hawaiians for Homestead Lands	King Kamehameha Hawaiian Civic Club
Association of Hawaiian Civic Clubs	Kingdom of Hawai'i
Au Puni O Hawai'i	Ko'olau Foundation
Brian Kaniela Nae'ole Naauao	Koolauloa Neighborhood Board No. 28
Council for Native Hawaiian Advancement	Ko'olaupoko Hawaiian Civic Club
Friends of 'Iolani Palace	Koa Ike
George K. Cypher 'Ohana	Kula no na Po'e Hawaii
God's Country Waimanalo	Kulolo'i'a Lineage – I ke Kai 'o Kulolo'i'a
Aha Moku Advisory Committee (Oahu)	Lahui Kaka'ikahi
Department of Hawaiian Home Lands	Ma'a 'Ohana c/o Lanī Ma'a Lapilio
Friends for Waialua Town	Mahu Ohana
Hawaiian Civic Club of Hilo	Mainland Council Association of Hawaiian Civic Clubs
Hawaiian Civic Club of Honolulu	Makaha Hawaiian Civic Club
Hawaiian Civic Club of Wahiawa	Mālama Mākua
Hawaiian Community Assets, Inc.	Malu'ōhai Residents Association
Ho Ohana	Mana Health Services, Inc.
Ho'okano Family Land Trust	Marae Ha'a Koa
Hui Huliau Inc.	Meleana Kawaiaea, LLC
Hui Kaleleiki Ohana	Menehune Foundation
Hui Mālama I Na Kupuna O Hawaii Nei	Mokuleia Community Association
Imua Hawaii	Na Koa Ikaika Ka Lahui Hawaii
Ka'ala Cultural Learning Center	Na Ku'auhau 'o Kahiwakaneikopolei
Kāko'o 'Ōiwi	Nanakuli Hawaiian Homestead Association
Kalaleloa Heritage and Legacy Foundation	Nanakuli-Maili Neighborhood Board #36
Kalihi Palama Hawaiian Civic Club	Na Ohana o Puaoi a me Hanawahine
Kamealoha	Native Hawaiian Chamber of Commerce
Kamehameha Schools – Community Relations and Communication Group	Native Hawaiian Church

Native Hawaiian Economic Alliance
Native Hawaiian Education Council
Native Hawaiian Hospitality Association
Nekaifes Ohana
North Shore Neighborhood Board #27
Office of Hawaiian Affairs, Ka Pouhana
Order of Kamehameha I
Pacific Justice & Reconciliation Center
PA'I Foundation
Papa Ola Lokahi
Papakōlea Community Development
Partners in Development Foundation
Peahi Ohana
Prince Kūhiō Hawaiian Civic Club
Royal Hawaiian Academy of Traditional Arts

Sovereign Councils of the Hawaiian
Homelands Assembly
The Friends of Hokule'a and Hawai'i'iloa
The I Mua Group
The Makua Group
The Mary Kawena Pūku'i Cultural
Preservation Society
Waialua Community Association Waianae
Kai Homestead Association
Waialua Hawaiian Civic Club
Waianae Coast Neighborhood Board #24
Wai'anae Hawaiian Civic Club
Wai'kīkī Hawaiian Civic Club
Waimānalo Hawaiian Homes Association

Individuals

William Aila Jr.
Jan Becket
Puanani Burgess
Fred Cachola
Vince Dodge
Gary Goodhue
Vincent Higa
Black Ho'ohuli
Hanale Hopfe
Melvin Kauwila Clark
Tony Laakapu Lenchanko
Tyson Loughmiller
Dan Lyman
Kamuela M. Magno
Den Mahiai

Vernell Mahiai
Bruce Moku
Bryan Nakamura
Mark Naone
Coco Needham
John Neill
Keone Nunes
De Monte Connor
Harry Robins
Ronald Schaedel
Joe Simpliciano
Vaughn Victor
Dwight Victor
Lincoln L. Victor

B.2 Consultation Meeting Fact Sheet

MISSILE DEFENSE AGENCY



Fact Sheet

<https://www.mda.mil>
mda.info@mda.mil

5700 18th Street, Bldg 245
Fort Belvoir, VA 22060-5573

Geotechnical Testing at Kuaokalā Ridge – Section 106/Chapter 6E Consultation

Missile Defense Agency (MDA) proposes to conduct geotechnical testing on Kuaokalā Ridge to determine constructability and to support site selection for possible future MDA projects at the location. The testing will occur adjacent to Ka'ena Point Satellite Tracking Station (KPSTS) on State land managed by the Department of Land and Natural Resources (DLNR), Division of Forestry and Wildlife. MDA is coordinating with DLNR to obtain a Right-of-Entry (ROE) permit for the testing. As a federal undertaking, the geotechnical testing is subject to Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended) and its implementing regulations at 36 CFR § 800. Because the geotechnical testing will occur on State land and requires a ROE permit from DLNR, the undertaking is also subject to Hawai'i Revised Statutes Chapter 6E and Hawai'i Administrative Rules 13-275.

Project Overview

The geotechnical testing will consist of approximately 10 soil test borings and 3 auger borings in an approximate 160-acre area that overlaps the Kuaokalā Game Management Area and KPSTS. MDA anticipates that all geotechnical testing will occur on State land.

- Soil test borings will be 4 to 6 inches in diameter and up to 100 feet deep.
- Lower portion of soil test borings will be backfilled with a cement-bentonite grout, and the top portion backfilled with drill spoils and on-site soils.
- Auger borings will be 12 inches in diameter or smaller and approximately 6 feet deep.
- Each auger borehole will be backfilled with drill spoils.
- MDA will avoid all known historic properties during geotechnical testing.
- MDA will conduct archaeological monitoring during the testing.



Example of truck-mounted drill rig for geotechnical testing.

Section 106 and Chapter 6E

Section 106 of the NHPA and Chapter 6E require federal and state agencies, respectively, to assess the effects of their actions on significant cultural resources, termed "historic properties" in Section 106 and referred to as "significant historic properties" under Chapter 6E. Under both laws, cultural resources are considered significant when they are associated with important events, people, design or construction, or for their information potential. Under Chapter 6E, properties may also be significant if they have important value to the Native Hawaiian people or to another ethnic group of the state. Historic properties must have both significance and have retained their historic integrity. Properties that meet at least one of the four criteria and have integrity are eligible for listing in the National Register of Historic Places.

Area of Potential Effects; The Area of Potential Effects (APE) is "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties" (36 CFR § 800.16(d)). The APE for the geotechnical testing at Kuaokalā Ridge is the approximate 160-acre parcel where testing will occur, and is shown on the reverse page.

Approved for Public Release
18-MDA-9729 (27 Jul 18)

Consultation: Section 106 of the NHPA requires federal agencies to consult with interested parties, including Native Hawaiian Organizations that attach religious and cultural significance to historic properties in the APE. MDA must consult on the identification of historic properties (including National Register evaluations) and the proposed undertaking's effect(s) on historic properties. If there are adverse effects, the agency must consult on measures to avoid, minimize, or mitigate the effects.

Under Chapter 6E, a state agency (or project proponent) must consult with ethnic organizations or members of ethnic groups when evaluating a property that might be significant under Criterion E. If the agency identifies adverse effects, they must also consult when recommending measures to mitigate the effects. For certain mitigation actions, the agency may need to consult with the Office of Hawaiian Affairs when developing work plans.

Known Cultural Resources

Previous reconnaissance surveys in the project area identified one site known to be in the APE, the Moka'ena Heiau, also known as Site 188. The site was first recorded by J. Gilbert McAllister during his island-wide reconnaissance survey in 1929 (McAllister 1933). Site 188 is eligible for listing in the National Register of Historic Places and the Hawaii Register of Historic Places, and is culturally significant as a traditional Hawaiian ceremonial site. The heiau, which is on State land, is at the highest elevation of any on O'ahu.



Area of Potential Effect and general locations of Site 188, Moka'ena Heiau, and Site TS 1. Site boundaries shown in map are enlarged to protect site locations.

MDA contracted an archaeological inventory survey of the APE, which was completed on July 17, 2018. The survey identified one previously unknown archaeological site: a possible terrace and alignment that may be a traditional Hawaiian agricultural or habitation site. The site has been given the temporary designation TS-1. The survey also included detailed mapping of the Moka'ena Heiau.

MDA Needs Your Input

In accordance with the NHPA and Chapter 6E, we request your comments on the following topics:

- Identification of Historic Properties
- Significance of newly identified site TS-1
- Effects of geotechnical testing on the Moka'ena Heiau and TS-1 (testing will not occur within or adjacent to site boundaries).

Comments should be submitted via postal mail or email to the contact information below by August 3, 2018:

David Fuller
Deployment Environmental Officer
Environmental Division
Missile Defense Agency
BLDG 5224 Martin Rd.
Redstone Arsenal, AL 35898
Email: david.fuller@mda.mil

Approved for Public Release
18-MDA-9729 (27 Jul 18)

B.3 Consultation Meeting Presentation

8/6/2018



The slide features a header with the Native Defense Model logo on the left and a satellite image of Earth on the right. The main text is centered and reads: "Welcome", "Consultation Meeting for", "Geotechnical Testing", and "at Kuaokalā Ridge". A small footer at the bottom left states "Approved for Public Release 18-MCA-9727 (22 Jul 18)".

Welcome

**Consultation Meeting for
Geotechnical Testing
at Kuaokalā Ridge**

Approved for Public Release
18-MCA-9727 (22 Jul 18)



The slide features a header with the Native Defense Model logo on the left and a satellite image of Earth on the right. The main text is centered and reads: "Meeting Goals". Below this is a bulleted list of goals. A small footer at the bottom left states "Approved for Public Release 18-MCA-9727 (22 Jul 18)".

Meeting Goals

- Begin dialogue with Native Hawaiian Organizations and interested individuals
- Introduce and answer questions about proposed Geotechnical Testing at Kuaokalā Ridge
- Consult on cultural resource issues:
 - Identification and Evaluation of Historic Properties
 - Potential effects on Historic Properties from Geotechnical Testing

Approved for Public Release
18-MCA-9727 (22 Jul 18)

8/6/2018

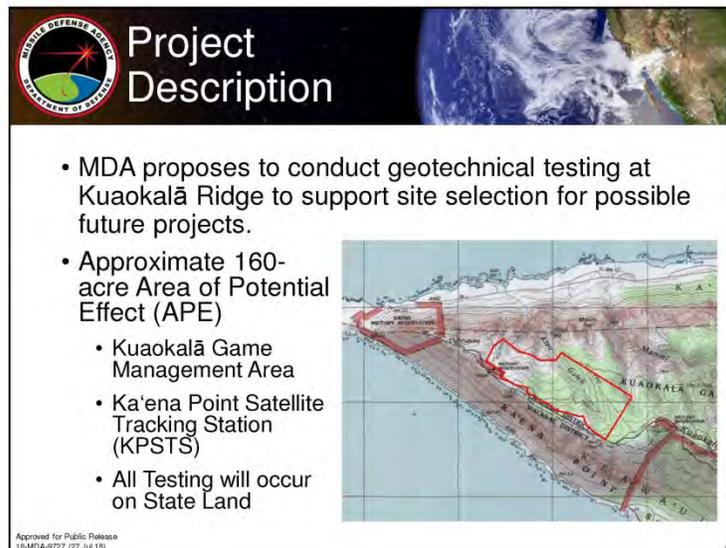


Consultation

MDA needs your expertise and input:

- Identify Historic Properties
- Evaluate Historic Properties for the National and Hawai'i Registers
- Assess Effects on Historic Properties
- Avoidance and Monitoring
- Satisfies legal requirements for consultation:
 - Section 106 of the National Historic Preservation Act
 - HRS Chapter 6E

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18-MDA-6727 (27 Jul 18)



Project Description

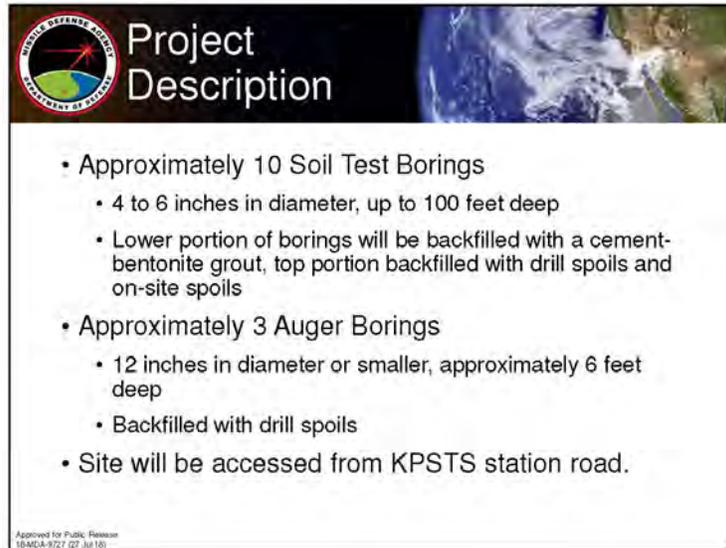
- MDA proposes to conduct geotechnical testing at Kuaokalā Ridge to support site selection for possible future projects.
- Approximate 160-acre Area of Potential Effect (APE)
 - Kuaokalā Game Management Area
 - Ka'ena Point Satellite Tracking Station (KPSTS)
 - All Testing will occur on State Land



Approved for Public Release
18-MDA-6727 (27 Jul 18)

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8/6/2018



Project Description

- Approximately 10 Soil Test Borings
 - 4 to 6 inches in diameter, up to 100 feet deep
 - Lower portion of borings will be backfilled with a cement-bentonite grout, top portion backfilled with drill spoils and on-site spoils
- Approximately 3 Auger Borings
 - 12 inches in diameter or smaller, approximately 6 feet deep
 - Backfilled with drill spoils
- Site will be accessed from KPSTS station road.

Approved for Public Release
18MDA 9727 (27 Jul 18)



Project Description

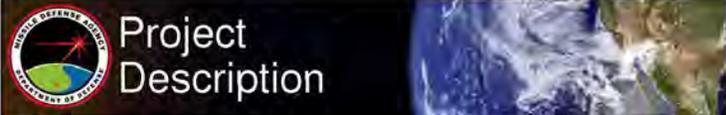
- Equipment may include the following:
 - drill rig (truck- or track-mounted)
 - flat-bed support truck
 - low-boy trailer
 - water truck
 - pickup trucks/sports utility vehicles



Example of truck-mounted drill rig for geotechnical testing.

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18MDA 9727 (27 Jul 18)

8/6/2018



Project Description

- MDA will avoid known historic properties during geotechnical testing
- MDA will conduct archaeological and cultural monitoring of all ground disturbance during the testing.
 - The monitoring will also serve to support the identification of subsurface archaeology if the site is selected for future projects.

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18MDA-9727 (Z) (Jul 18)



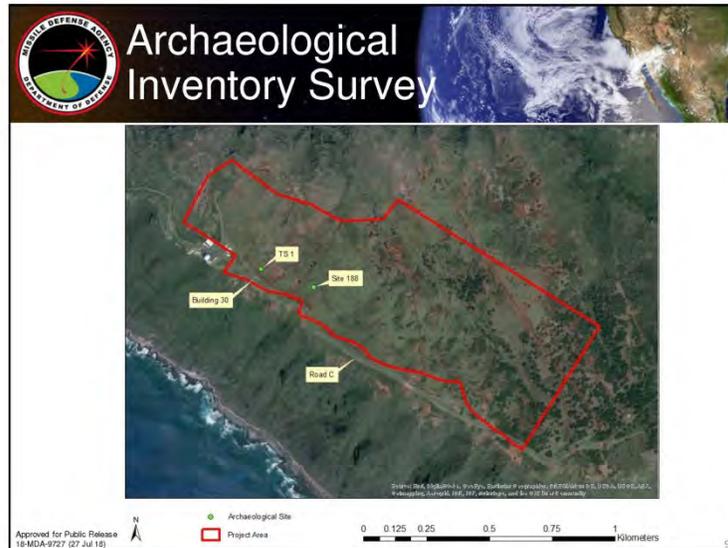
Archaeological Inventory Survey

- Keala Pono conducted an archaeological inventory survey (AIS) of the APE.
 - Pedestrian survey of the approximate 160-acre APE
 - Intensive-level site mapping and documentation
 - Detailed mapping of the Moka'ena Heiau
- Identified two sites:
 - Site 188, Moka'ena Heiau (previously known)
 - Site TS 1 (newly identified)

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18MDA-9727 (Z) (Jul 18)

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8/6/2018



Archaeological Inventory Survey

- Site 188, Moka'ena Heiau
 - Previously documented traditional Hawaiian ceremonial site
 - Highest elevation of any heiau on O'ahu
 - Four terraces
 - Observed branch coral offerings in a stone-lined pit
 - Possible ku'ula at the base of one wall
 - Sweeping views of the landscape and ocean

Moka'ena Heiau ↑

Possible Ku'ula →

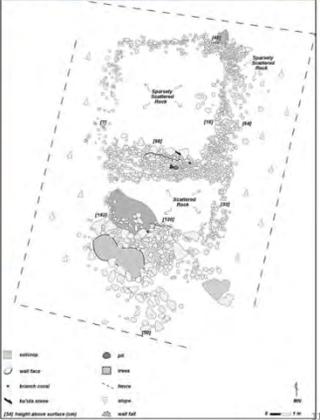
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8/6/2018

 **Archaeological Inventory Survey**



Possible boulder of significance, as seen from Moka'ena Heiau (boulder is outside APE)



Plan View of Heiau →

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 **Archaeological Inventory Survey**

- Site TS 1
 - Possible terrace and stone alignment
 - Terrace is composed of stacked stones and cobbles, is roughly rectangular
 - C-shaped stone alignment is slightly uphill of the terrace, aligned with the terrace wall
 - Poor condition, not well defined

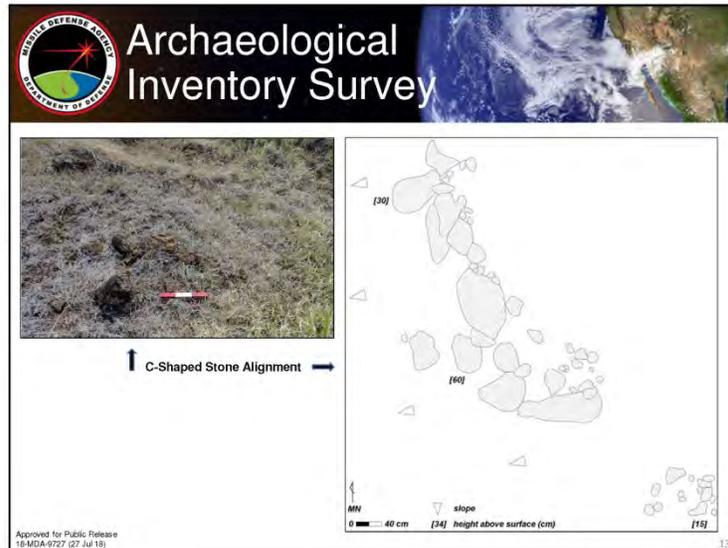


Possible Terrace

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8/6/2018



Archaeological Inventory Survey

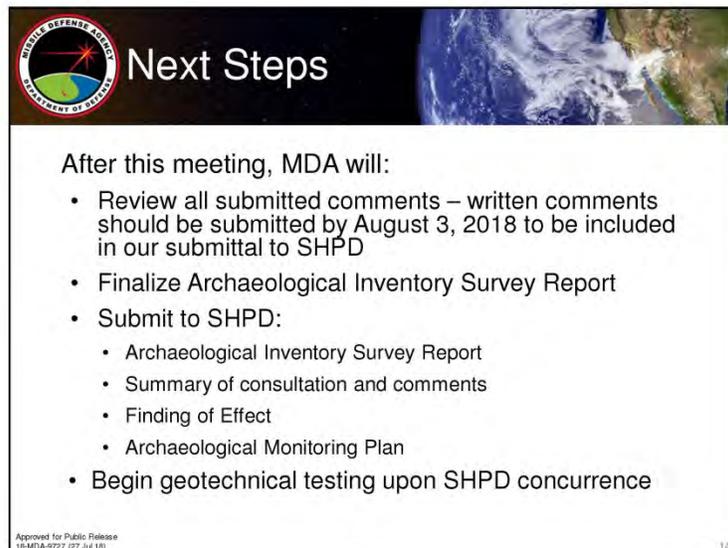
Archaeological Inventory Survey

↑ C-Shaped Stone Alignment →

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The slide features a header with the Native Defense Agency logo and a satellite image of the Hawaiian Islands. The main content includes a photograph of a 'C-Shaped Stone Alignment' on the ground with a red scale bar, and a topographic map of the Hawaiian Islands with elevation contours and a scale bar. The map includes labels for 'MN', 'slope', and 'height above surface (cm)'.



Next Steps

After this meeting, MDA will:

- Review all submitted comments – written comments should be submitted by August 3, 2018 to be included in our submittal to SHPD
- Finalize Archaeological Inventory Survey Report
- Submit to SHPD:
 - Archaeological Inventory Survey Report
 - Summary of consultation and comments
 - Finding of Effect
 - Archaeological Monitoring Plan
- Begin geotechnical testing upon SHPD concurrence

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18-MDA-6727 (27 Jul 18)

14

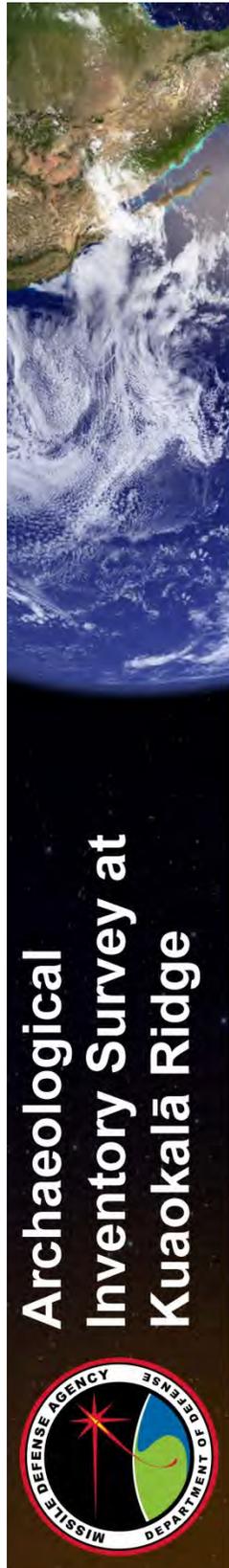
The slide features a header with the Native Defense Agency logo and a satellite image of the Hawaiian Islands. The main content is a bulleted list of next steps for the MDA.

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8/6/2018



B.4 Consultation Meeting Survey Poster

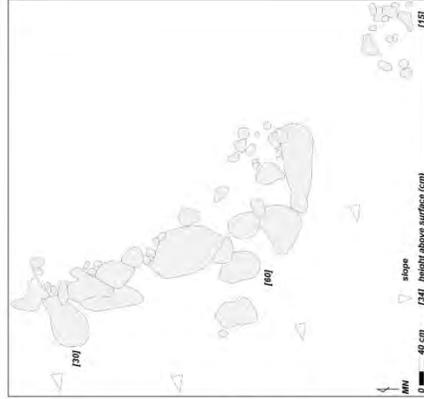


Site 188, Moka'ena Heiau facing east (above) and plan view (right)

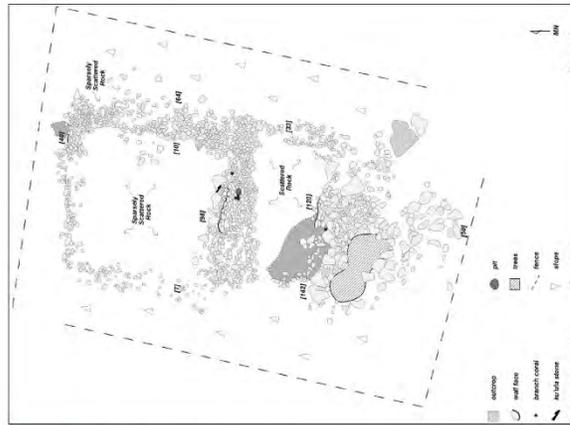
The Moka'ena Heiau is a National Register-eligible traditional Hawaiian ceremonial site at the highest elevation of any heiau on O'ahu. The heiau consists of four terraces that total 28 meters long by 12 meters wide. Several offerings of branch coral were observed within the structure. A possible ku'uila is at the base of one of the walls. The site has sweeping views of the landscape and ocean. A prominent large boulder on the ridge to the northeast (not shown) may be associated with the site.

MDA contracted Keala Pono Archaeological Consulting to conduct an Archaeological Inventory Survey of the Geotechnical Testing Area of Potential Effect. The survey was completed on July 17, 2018. Keala Pono performed detailed mapping of the Moka'ena Heiau and identified a newly identified site temporarily designated TS 1.

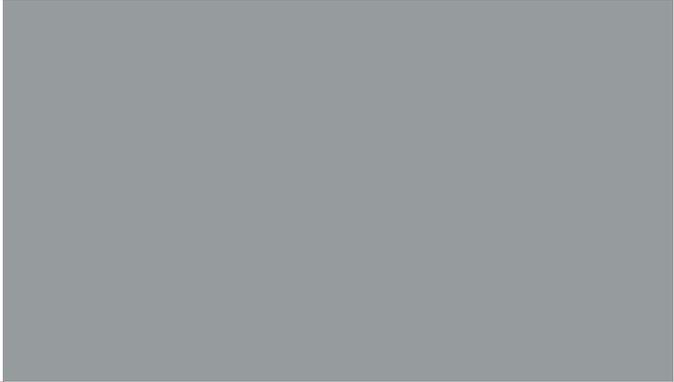
Site TS 1 is a possible Terrace and stone alignment. The terrace is 2.7 meters long by 3.7 meters wide and is composed of stacked stones and cobbles. The c-shaped alignment is slightly uphill of the terrace. The site, which is in poor condition, may be a traditional agricultural or habitation feature.



Possible stone alignment at TS 1 (above and bottom left). Overview of possible terrace at TS 1, facing southeast (bottom right)



Approved for Public Release 18-MDA-9728 (27 Jul 18)



C

Consultation Materials: Comment Period 2

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C.1 Consultation Package (For Existing Consulting Parties)



DEPARTMENT OF DEFENSE
MISSILE DEFENSE AGENCY
5700 18TH STREET
FORT BELVOIR, VIRGINIA 22060-5573

September 19, 2018

[REDACTED]
[REDACTED]
[REDACTED]

Dear Sir or Madam:

The Missile Defense Agency (MDA) seeks to continue consultation with you and/or your organization regarding our proposal to conduct geotechnical testing at Kuaokalā Ridge on O‘ahu as we move through federal and state review processes under Section 106 of the National Historic Preservation Act (NHPA) and Hawai‘i Revised Statutes (HRS) Chapter 6E. As described in previous correspondence sent to you or your organization and dated July 17, 2018, the MDA proposes to drill 13 soil test and auger borings to determine the future potential constructability of a parcel of State land adjacent to the existing Ka‘ena Point Satellite Tracking Station (KPSTS) on Kuaokalā Ridge. The testing is subject to a right-of-entry permit from the Division of Forestry and Wildlife (DOFAW), which manages this parcel of land. The geotechnical testing proposal is related to, but separate from the MDA’s Homeland Defense Radar – Hawai‘i (HDR-H) project, for which we are currently preparing an Environmental Impact Statement (EIS) under the National Environmental Policy Act and Hawai‘i Environmental Policy Act.

We have received from previous consultation a number of substantive comments regarding the project and its effects on historic properties. You can find a summary of these comments and the MDA’s responses in Enclosure 1. Among the comments were several that the Area of Potential Effects (APE) as defined for the geotechnical testing effort was too large and should more accurately reflect the area where geotechnical testing would occur. The APE was defined as the entire approximate 160-acre candidate site for the HDR-H project, composed of approximately 28 acres of KPSTS existing leased land, approximately 67 acres of State land where the HDR-H project would be located if the Kuaokalā site is selected as the deployment location, and approximately 65 acres of State land that would be used as a construction laydown area to stage equipment and vehicles. However, the proposed geotechnical testing would only take place on approximately 22 acres of KPSTS existing leased land and the approximate 67-acre parcel of State land where the HDR-H project could be constructed. In response to comments on the size of the APE, the MDA has reduced the APE to the approximate 89-acre area where geotechnical testing would occur, outlined in blue in Enclosure 2. When the MDA initiates consultation on the HDR-H project, a new APE will be defined as appropriate for the potential effects of that undertaking.

The MDA also received multiple requests to share the results of the Archaeological Inventory Survey (AIS) of the APE that was completed in July 2018 by the Hawai‘i-based archaeology firm Keala Pono Archaeological Consulting. We have placed a copy of the AIS draft report along with other documents related to the Section 106 and Chapter 6E consultation

on the MDA project website, <https://www.mda.mil>, which we invite you to review. We have also enclosed a summary of the AIS and its findings in this letter (Enclosure 3).

The MDA invites you to review the enclosed information and provide us with any additional comments related to the Section 106 and Chapter 6E reviews for the geotechnical testing. The MDA is hosting two meetings for consulting parties to meet with the MDA and discuss historic preservation issues related to the geotechnical testing, such as those outlined previously. Consulting parties are those that have consultative roles in the Section 106 and Chapter 6E reviews, including representatives of the State Historic Preservation Division, Native Hawaiian Organizations, and local governments. Please use the enclosed form (Enclosure 4) to RSVP by October 5, 2018 if you are a consulting party wishing to attend one of the meetings:

- 6:00 pm to 8:00 pm, Tuesday, October 9, 2018
Waiʻanae Neighborhood Community Center, 85-670 Farrington Hwy, Waiʻanae
- 6:00 pm to 8:00 pm Thursday, October 11, 2018
Wahiawā District Park, “Nutrition Site” Room, 1129 Kilani Ave, Wahiawā

Individuals or organizations that do not have a defined consultative role in the Section 106 and Chapter 6E reviews may request consulting party status if they have a demonstrated interest in the undertaking and historic preservation issues. If you wish to request consulting party status, please email buff.crosby@mda.mil with your request as soon as possible, including relevant details about your interest in the undertaking, historic preservation issues, and/or your relationship with the project area. The MDA will consider all requests for consulting party status. Again, you may still comment on the undertaking even if you are not a consulting party, and we encourage you to do so. Issues to consider in your comments may include:

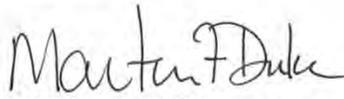
- Do you know of potential historic or cultural resources within the APE that were not included in the AIS?
- Do you have new or additional information about sites identified in the AIS?
- Does the evaluation of archaeological site significance in the AIS address how you or your organization views the significance of those sites?
- Do you have any recommendations or concerns regarding the MDA’s commitment to conduct archaeological and cultural monitoring of the geotechnical testing?

For information about the Section 106 process and the role of the public and consulting parties, we recommend reviewing the Advisory Council on Historic Preservation’s publication, “A Citizens Guide to Section 106 Review,” which can be found at www.achp.gov.

As described in our previous letter, please be aware the geotechnical testing at Kuaokalā Ridge is a separate undertaking from the HDR-H project. We respectfully request that you focus your comments on the present geotechnical testing undertaking and related historic preservation concerns so that we can give these comments our full consideration as we complete this review. There will be multiple opportunities to consult on and provide comments for the HDR-H project when the MDA begins this consultation later in 2018.

We look forward to working with you regarding historic preservation issues as we complete the Section 106 and Chapter 6E reviews for the geotechnical testing at Kuaokalā Ridge. We request your comments by October 24, 2018 so we have adequate time to consider them as we consult with the State Historic Preservation Division and prepare to conduct the testing. Please return the RSVP form and/or your comments to Dr. Buff Crosby, the MDA Environmental Sensors Support at buff.crosby@mda.mil or mail to Missile Defense Agency/Directorate (FDOE), Attn: Buff Crosby, Bldg 5224 Martin Rd, Redstone Arsenal, AL 35898. You may also contact Dr. Crosby at 256-450-4744 or our Cultural Resource contacts, Elizabeth Leclerc at 720-633-7088 and Jeanne Barnes at 571-327-5876, if you have any questions.

Sincerely,



MARTIN F. DUKE
Director for Facilities
and Deployments

Enclosures:

1. Comment Summary and the MDA's Response
2. Revised Area of Potential Effect
3. AIS Summary
4. RSVP and Comment Form

Geotechnical Testing at Kuaokalā Ridge
Comments and Responses

MDA Response to Comments Received on the Proposal to Conduct Geotechnical Testing at Kuaokalā Ridge

Comments received to date in consultation on the proposed geotechnical testing at Kuaokalā Ridge are summarized below along with the Missile Defense Agency's (MDA) responses to these comments. Comments substantive to the historic preservation review process under Section 106 of the National Historic Preservation Act (NHPA) and Hawai'i Revised Statutes (HRS) Chapter 6E are organized by topic. The MDA received a large number of comments not related to the historic preservation process. The MDA has responded to these comments to provide clarification or additional information where appropriate, included at the end of this document. The MDA appreciates the comments received and looks forward to any further comments you may have.

1. General Communications and Consultation

- **Comments Summary:** The MDA did not do enough to inform people of the meetings and comment period. There are people for whom these lands are their kuleana, and organizations that care for Ka'ena Point that were not included. The comment period was too short and should have been extended more than 1 day beyond the consultation meetings. There were requests for additional time to comment and additional meetings. Some meeting participants were concerned that the MDA representatives at the meetings would not be able to effectively communicate to decision makers the passion and spirituality the participants expressed with regard to the issues discussed.

MDA Response: The MDA is opening another comment period with additional meetings to provide consulting parties additional time to comment and consult under Section 106 and Chapter 6E. The MDA has looked to multiple sources to identify potential interested consulting parties, including the Department of the Interior's list of Native Hawaiian Organizations (NHOs), updated May 2018; an NHO outreach report completed for US Air Force (USAF) Kaena Point Satellite Tracking Station (KPSTS) that identified parties that should be included in such consultations for the region; and comment submittals from the concurrent EIS process. The MDA cross-referenced these contacts with current organization websites to verify current contact information such as mail and email addresses. The MDA's initial correspondence requested that recipients notify the MDA of any additional parties that should be consulted, which are now included in this mailing. Further, mailings were sent via certified mail to ensure delivery receipts. The MDA has cross-referenced undeliverable addresses and attempted to update those addresses. For any organization that had a publically available phone number, the MDA attempted to make contact via phone in order to verify receipt of information and request parties to attend the consultation meetings. Since the initial correspondence, the MDA has requested further assistance from the State Historic Preservation Division (SHPD) and the Office of Hawaiian Affairs (OHA) to identify any additional potentially interested parties and to help verify contact information.

The MDA understands that participants are concerned about their voices and spirituality being understood by decision makers. Both meetings were transcribed so that the MDA

Geotechnical Testing at Kuaokalā Ridge
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could accurately capture the comments of the meeting participants with accuracy and context.

2. Area of Potential Effect

- **Comment Summary:** The Area of Potential Effects (APE) is too large for the action (i.e. all of the testing locations are concentrated in one portion of the APE). Approval of the testing within the entire parcel would give the MDA or anyone else a green light to construct anywhere in the parcel without further review. For example, if the location was not selected by the MDA for development, the results of this testing could be used for a future project (including housing or commercial development) and still result in loss of land.

MDA Response: The original 160-acre APE was defined with reference to the Kuaokalā Ridge candidate site being considered under the separate, but related, Homeland Defense Radar – Hawai'i (HDR-H) project. As described in previous correspondence and meetings, the geotechnical testing at Kuaokalā Ridge is needed to determine constructability and inform the site selection process for the HDR-H Environmental Impact Statement. The 160-acre candidate site consists of approximately 28 acres of existing USAF leased land that would be used for road access to the proposed HDR-H project area, approximately 67 acres of State land where the HDR-H project would be located if Kuaokalā Ridge is selected as the deployment location, and approximately 65 acres of laydown area which would be used to stage equipment and vehicles during construction. As shared at previous consultation meetings, the proposed geotechnical testing that is the subject of the present consultation would only occur in a portion of this area: approximately 22 acres of existing USAF leased land and the approximate 67-acre parcel of State land where the HDR-H could be constructed. The MDA agrees with the commenters that the APE for the geotechnical testing project should be specific to the actual location of proposed testing and has revised the APE as the 89 acre total area (including USAF and State land). A map of the revised APE is provided separately.

Under Section 106 and Chapter 6E, the APE of an undertaking must be defined based on the potential effects of that specific undertaking. Therefore, when the MDA initiates consultation under Section 106 and Chapter 6E for the HDR-H project, the MDA will define a new APE that is appropriate for the potential effects of that project, will conduct consultation with SHPD, NHOs, and other consulting parties, and seek input regarding the project's effects on historic properties.

Federal and State agencies must comply with Section 106 and Chapter 6E, respectively, for each action they undertake that has potential to effect historic properties. Should the Kuaokalā Ridge site not be selected for deployment of the HDR-H, then no other Department of Defense or other federal entity would be able to use the results of the geotechnical testing without first conducting new Section 106 and Chapter 6E consultations. Likewise, any state or commercial entity interested in using land in the APE would also be required by law to comply with the State's right-of-entry and consultation processes.

Geotechnical Testing at Kuaokalā Ridge
Comments and Responses

3. Identification of Historic Properties

- **Comment Summary:** An Archaeological Inventory Survey (AIS) is needed in the project area, preferably by a Hawaiian firm (one commenter recommended a specific firm, Keala Pono Archaeological Consulting). All archaeological studies should be completed by one firm. The Moka'ena Heiau must be re-surveyed and should be cleared of vegetation so that it can be mapped. How was the archaeological firm selected? If the survey relied on previous surveys it would be inadequate. There are many unrecorded cultural sites in the area.

MDA Response: The MDA contracted Keala Pono, a Native Hawaiian-owned company, to conduct the AIS. The AIS was completed in July 2018. The firm was selected from companies permitted to do archaeology in Hawai'i based in part on their familiarity with the project area and availability. The AIS involved a pedestrian walk-over across the 160-acre Kuaokalā Ridge HDR-H candidate site, which included the 67-acre geotechnical testing APE. The survey was conducted by archaeologists meeting the Secretary of the Interior's Professional Qualification Standards for archaeology. The survey included hand cutting of vegetation and detailed mapping of the heiau and a new archaeological site identified during the AIS as Temporary Site 1 (TS-1). A brief summary of the AIS is provided in a separate document and is provided in full at the project website: <https://www.mda.mil>.

- **Comment Summary:** The entire Kuaokalā Ridge is a culturally sacred area. Moka'ena Heiau is part of a traditional cultural landscape (TCL). A TCL/Traditional Cultural Properties (TCP) survey is needed for the area. It should look at Moka'ena as part of a larger cultural complex which also would include Pu'u Pueo (northwest of the APE); Leina a Ka 'Uhane (one of the most significant sites on O'ahu associated with the departure of souls to the afterlife); Pohaku Lana'i, Puokalei'ne'au, Kukanioko, Pohaku Kaua'i and other sites between Pu'u Pu'e'o and Moka'ena, including but not limited to the areas up mauka and sites along the shoreline. There are sites within Ka'ena that have connections between mauka and makai. Sites in this area are steeped on mo'olelo, including those associated with the hero Maui and the relationship between Ka'ena Point and Kaua'i.

MDA Response: The MDA understands the Moka'ena Heiau may be part of a TCP/TCL that incorporates other sites within the Ka'ena Point landscape. The MDA is arranging to conduct a TCP study in the near future (2018-2019) as part the HDR-H EIS and Section 106/Chapter 6E consultation. It is the MDA's opinion that all cultural sites in the 67-acre geotechnical testing APE that may be part of this landscape were identified during the AIS, and considering the MDA's commitment to avoid these resources and provide archaeological and cultural monitors during testing, it is not necessary that the TCP study be completed before the proposed geotechnical testing can proceed.

- **Comment Summary:** The Moka'ena Heiau is a temple sacred to the Kanenuiakea worshippers, an indigenous religion recognized by the International Association for Religious

Geotechnical Testing at Kuaokalā Ridge
Comments and Responses

Freedom. The temple is and was the site of sun worship. The path of the sun, shadows during solstices, the viewshed to the ocean, and an unobstructed view of the sky are key elements that must be kept intact for cultural purposes. Lineal descendants attribute their Kupuna, ancestors that came to O'ahu from Kaua'i, with the construction of Moka'ena Heiau. The heiau is also associated with the connections between O'ahu, Kaua'i, and the channel between them, referred to during consultation as "the vine that binds." While some commenters suggested the mana at Moka'ena Heiau might be broken since unknown actions have taken place there since the USAF Kaena Point Satellite Tracking Station has restricted access, others stated the mana is intact. Moka'ena Heiau (and Leina a Ka 'Uthane) should be nominated to the National Register of Historic Places (NRHP) and Hawai'i Register of Historic Places (HRHP). These nominations should be a pre-requisite for further consultation.

MDA Response: Comments on the significance of the Moka'ena Heiau were incorporated into the assessment of the site's significance and eligibility for NRHP and HRHP listing in the AIS. The heiau is recommended eligible for both the NRHP and HRHP based on significant traditional association. Information shared by consulting parties regarding the heiau's significance will also be incorporated in the TCP survey and cultural impact assessment associated with the HDR-H project. The MDA notes that under Section 106 of the NHPA, properties that are eligible for listing in the NRHP are afforded the same consideration as listed properties.

- Comment Summary: There is a family stone with the Helenihi name, placed in 1905.

MDA Response: The AIS did not identify a family stone within the survey area, and it does not appear the stone is within the APE. The MDA will coordinate with the commenter to determine where the stone is located and ensure the undertaking does not disturb the stone.

- Comment Summary: TS-1 is archaeological evidence of people practicing moving pohaku using their minds and oli. To become a kahuna, one has to demonstrate they can move pohaku, which comes from the resonance of your voice and the intonation.

MDA Response: Information on the possible function and significance of site TS-1 was considered in the AIS.

4. Effects on Historic Properties

- Comment Summary: Moka'ena Heiau is connected to the ridge, the entire area is connected. One commenter suggested there should be at least a 100 meter buffer around the heiau. Another said no buffer would be large enough to prevent impacts. A third commenter suggested the size of the equipment and borings would not affect the sites. Commenters noted that any construction that blocks the sun or interferes with the shadows at Moka'ena Heiau and below the heiau along the ridge will adversely affect the site, modern religious practices, and cultural customs.

Geotechnical Testing at Kuaokalā Ridge
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MDA Response: The MDA agrees that current fencing around Moka'ena Heiau is insufficient to prevent site impacts. After considering the input received, the MDA believes a 30-meter buffer will be sufficient to protect the heiau and its surroundings, noting that current and previous archaeological testing at the heiau indicates that no buried archaeological deposits are present. The MDA will also implement a 30-meter buffer around site TS-1 even though this site has not been recommended eligible for NRHP listing. The MDA will install temporary construction fencing or flagging to mark the buffer and project personnel conducting the testing will be prohibited from entering the buffer zone around each site. Further, Hawaiian archaeological and cultural monitors during the geotechnical testing will ensure that activities do not intrude within the buffers and will provide cultural sensitivity training for personnel conducting the testing.

- **Comment Summary:** This project will invite additional military construction in the vicinity. Construction (of the HDR-H facility) and future projects will have cumulative effects on Leina a ka 'Uhane, which is connected to Moka'ena Heiau. The construction will affect the mana up on the ridge, and affect Leina a Ka 'Uhane as the departure point for our souls.

MDA Response: The MDA understands that there are concerns about construction that may follow from the geotechnical testing, particularly from the HDR-H project. However, the present undertaking is the geotechnical testing required to determine whether the Kuaokalā Ridge site is suitable from a constructability standpoint. Given the 30-meter protective buffers around the two identified sites, along with archaeological and cultural monitoring, the MDA believes the geotechnical testing will not directly affect Moka'ena Heiau. The MDA will consider these comments regarding the cumulative effects of construction again once consultation for the HDR-H project is initiated and when assessing the impacts of that action.

- **Comment Summary:** Archaeological and cultural monitoring is required. Cultural monitoring must be performed by Hawaiian cultural specialists. There should be an advisory group that helps to counsel the program.

MDA Response: The MDA has committed to conduct archaeological and cultural monitoring, and has submitted an Archaeological Monitoring Plan to the SHPD. Archaeologists will be permitted to work in Hawai'i and will be led by an individual meeting the Secretary of the Interior's Professional Qualification Standards for archaeology. The cultural monitor will be a Hawaiian cultural specialist with generational or cultural affiliation with the project area, will have familiarity with cultural properties in the area, and will have sensitivity and the ability to represent and communicate with the MDA on behalf of Native Hawaiians. The monitors will be required to be present wherever there is ground disturbance and will have authority to stop the testing in an area if archaeological materials or human remains are identified on ground surfaces, in excavated soils, or within boring holes. If historic properties or human remains are found, they will be protected while the MDA halts activities, conducts additional consultation, and develops an action plan.

Geotechnical Testing at Kuaokalā Ridge
Comments and Responses

5. Iwi Kupuna

- **Comment Summary:** Commenters stated there are many burials on the ridge, with one stating her Kupuna were scattered on the ridge, in or near the APE. Others stated there are no iwi kupuna, citing numerous cultural studies that did not find iwi and that most of the ridge has not had cultural activity. Others expressed concern that vibrations from drilling could destroy delicate iwi and could have a negative impact on cave systems within the mountains, many of which are the final resting place for iwi kupuna.

MDA Response: The MDA received mixed input regarding the potential for human burials, or iwi kupuna, in the APE. The AIS did not uncover evidence of iwi kupuna in the 160-acre survey area, which included the APE for the proposed geotechnical testing. Given the proximity of the Moka'ena Heiau and TS-1, and some possibility for human remains and/or cultural materials, the MDA is using both archaeological and cultural monitoring during geotechnical testing. In the unlikely event that remains are identified during geotechnical testing, these will be handled in accordance with federal and state law.

6. Comments Outside of the Section 106/Chapter 6E Reviews

- **Comment Summary:** The entire Kuaokalā Ridge is a culturally sacred area, and drilling into the earth is considered an act of desecration similar to drilling in Arlington Cemetery. Our Gods supported that area. It is not some place that we have built because it is sacred. Our Kupuna own that land. Backfilling with foreign materials (e.g. bentonite) is culturally unacceptable, akin to injecting foreign material into the body of a deity. Are there non-invasive means of determining whether the site is constructible? Soil removed from the site should be returned after analysis.

MDA Response: The MDA is required to use concrete-bentonite or a similar mix to backfill the borings, per the requirements of HAR 13-168-2 and the Hawai'i Department of Land and Natural Resources (DLNR) standards. This is necessary to prevent groundwater contamination and restore geological and hydrological conditions. The MDA is considering the request to return any soils removed from the site following analysis. The MDA will implement this measure to the extent practicable.

- **Comment Summary:** The geotechnical testing project is not conforming with other Hawaiian laws (related to impacts on traditional cultural practices). A Cultural Impact Assessment is required. The MDA needs to consider other environmental impacts such as traffic, noise, and effects on biological resources, including endangered species.

MDA Response: The MDA, in consultation with the Hawai'i DLNR Division of Forestry and Wildlife, has determined the geotechnical testing will not have potential to affect the environment and does not require an Environmental Assessment. Therefore, a Cultural Impact Assessment (as part of an Environmental Assessment) is also not required. The

Geotechnical Testing at Kuaokalā Ridge
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MDA will conduct a Cultural Impact Assessment for the overall HDR-H project, which will be incorporated into the associated EIS. The EIS will address traffic, noise, biological resources, cultural resources, and other aspects of the environment.

- **Comment Summary:** A site visit should be held so that community members can see Moka'ena Heiau and Site TS-1.

MDA Response: The MDA plans to organize one or more site visits to the Moka'ena Heiau as part of the overall HDR-H consultation. The MDA will extend the invitation to participate in the site visit to all NHOs contacted for the present consultation.

- **Comment Summary:** The MDA should provide copies of the AIS, the submittal to SHPD, and the presentation given at the meetings held August 1 and 2, 2018.

MDA Response: The MDA has provided a summary of the AIS, included separately, and has posted a copy of the AIS on the project website, <https://www.mda.mil>. Other materials associated with the Section 106 and Chapter 6E consultations have been placed on the website.

- **Comment Summary:** There are sensitive biological species in the project area and surrounding Ka'ena Point area. Species outside the APE may be affected by travel of equipment to and from the testing activities. These species include a rare variety of naupaka and the ohai that grows there is specific to the Ka'ena Point area. There is a tree that grows mauka at Ka'ena that is believed to be an endangered species. How will the MDA know whether endangered Hawaiian plants are present? Biological surveys should be conducted by a native Hawaiian.

MDA Response: The MDA determined, in consultation with the DLNR Division of Forestry and Wildlife, that the geotechnical testing will not have potential to affect threatened or endangered species. The Hawaiian cultural specialists conducting cultural monitoring will also be familiar with plants of traditional or cultural importance. Additional biological studies in conjunction with the U.S. Fish and Wildlife Service and DLNR of the Kuaokalā Ridge project area are planned in association with the HDR-H project. Qualified biologists with experience with Hawaiian species and environments will complete the studies. The MDA will consider the request that native Hawaiians conduct the biological surveys where practicable. The MDA has also begun initial discussions with the U.S. Fish and Wildlife Service to determine whether any threatened or endangered species are present in the APE. To date, no threatened or endangered species have been identified. The nature of the proposed geotechnical testing is very limited (13 soil borings, 4-12 inches wide) and no trees will be impacted or removed.

- **Comment Summary:** A community member and NHO is corresponding with DLNR to inter the remains of a Waialua owl in their custody at the Moka'ena heiau, which is situated on Pu'u Pueo (Owl Point) overlooking Ka'ena Ahupua'a and specifically Leina a Ka 'Uhane. This should be completed as a pre-requisite to consultation.

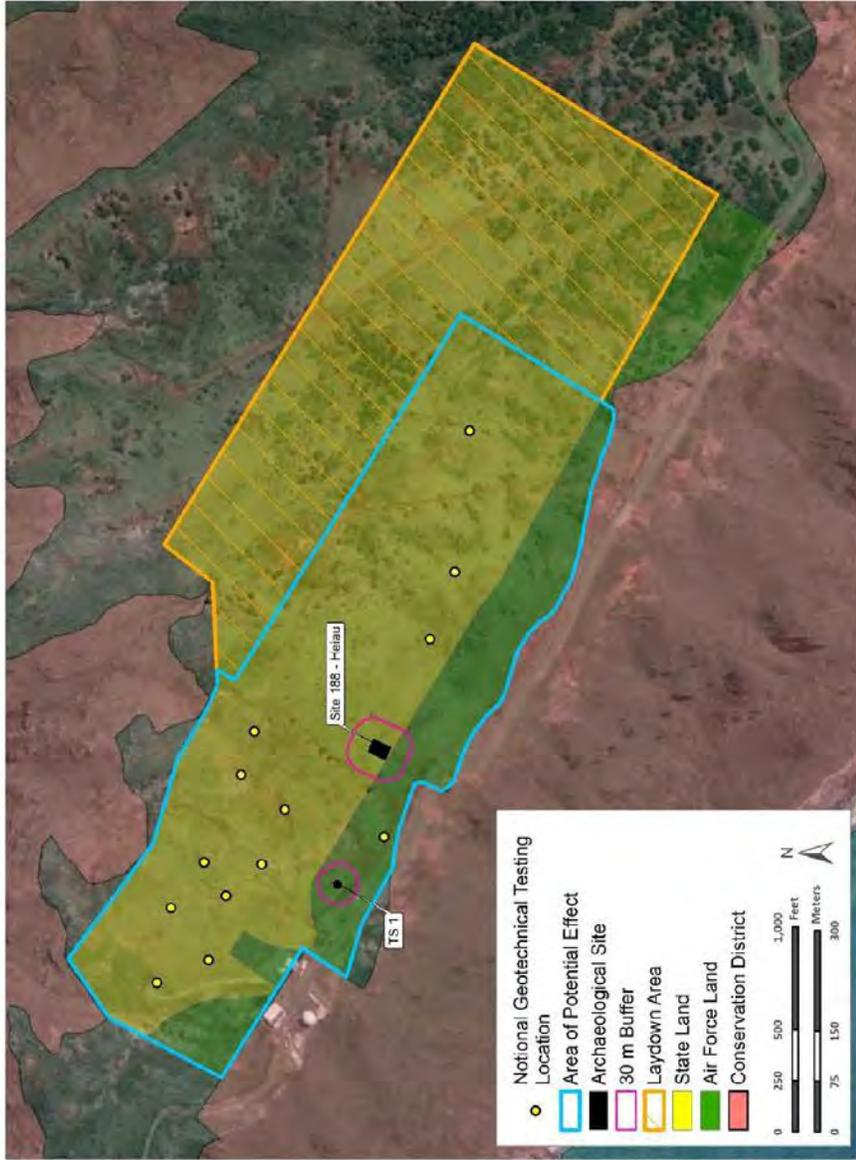
Geotechnical Testing at Kuaokalā Ridge
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MDA Response: This issue is outside of the MDA's jurisdiction. The MDA will provide this comment to DLNR.

- **Comment Summary:** The MDA should send a letter to the Bishop Museum urging continuing press of their publication entitled "Sites of O'ahu" and/or PDF online on their website for download. This is an extremely valuable cultural resource publication which contains Hawaiian Cultural Sites, including Moka'ena Heiau. Many utilize this publication professionally and personally.

MDA Response: The MDA recommends the commenter submit their comment directly to the Bishop Museum as this is outside the purview of the project.

Kuaokalā Ridge Geotechnical Testing Area of Potential Effects



Geotechnical Testing Area of Potential Effects (outlined in blue), with a 30-meter buffer around archaeological resources, and notional boring locations.

ENCLOSURE 2

Archaeological Inventory Survey Summary for Geotechnical Testing at Kuaokalā Ridge, Ka'ena and Keawa'ula Ahupua'a, Waialua and Wai'anae District, Island of O'ahu, Hawai'i

This summary has been provided for your convenience. Please refer to the full Archaeological Inventory Survey (AIS) draft report, located at the Missile Defense Agency (MDA) project website: <https://www.mda.mil>.

Introduction

At the request of KFS, LLC on behalf of the MDA, Keala Pono Archaeological Consulting has prepared an archaeological survey report for the proposed geotechnical testing at Kuaokalā Ridge, adjacent to Ka'ena Point Satellite Tracking Station (KPSTS). This is located in Ka'ena and Keawa'ula Ahupua'a, Waialua and Wai'anae District, on the island of O'ahu, Hawai'i. Geotechnical testing will take place on portions of TMK: (1) 6-9-003:001 and (1) 8-1-001:014. This work was designed to identify, document, assess significance, and provide mitigation recommendations for any historic properties that may be located in the project area in anticipation of the proposed geotechnical testing.

Project Location and Environment

The project area is situated on the northwest corner of O'ahu. Most of the project area lies within Ka'ena Ahupua'a in the Waialua District, while a small portion on the south is situated within Keawa'ula Ahupua'a in the Wai'anae District. The project is on Kuaokalā Ridge on State land managed by the Department of Land and Natural Resources and adjacent to KPSTS. The survey area covers 66.73 ha (164.89 ac.), which is the area of the Kuaokalā Ridge candidate site for the Homeland Defense Radar – Hawai'i (HDR-H) project (Figure 1). The survey area encompassed the entire approximate 89-acre Area of Potential Effects (APE) for the proposed geotechnical testing undertaking at Kuaokalā Ridge.

Summary of Background Research

Research was conducted at the Hawai'i State Archives, Hawai'i State Library, the State Historic Preservation Division, as well as online at databases such as the Hawai'i Department of General Accounting map database, Ulukau, and Wai'hona 'Aina. Historical maps, archaeological reports, and historical reference books were among the materials examined. More information about the results of the background research is presented in the Draft AIS report and includes discussions about place names, mo'olelo, oli, mele, 'ōlelo no'eau, subsistence, traditional and historic-period land use, archaeological sites of importance, and previous archaeological studies.

The project area is located in the Kuaokalā uplands. This area was once a land rich in natural, as well as cultural resources. Mo'olelo reveal a place known for its ocean resources, where fishing played an important role in subsistence. But the region was also able to support sweet potato and probably some taro cultivation, which supplemented the marine-based diet. Previous archaeology has identified a variety of archaeological sites in the Kuaokalā region, and Moka'ena Heiau, Site 188, is located within the project area. The structure is known as the heiau of highest elevation on O'ahu. Major changes took place in the post-1778 historic era, as foreign interests began to take hold. Sugarcane, pineapple, and the U.S. military were the key enterprises that shaped the ahupua'a later in time.

ENCLOSURE 3

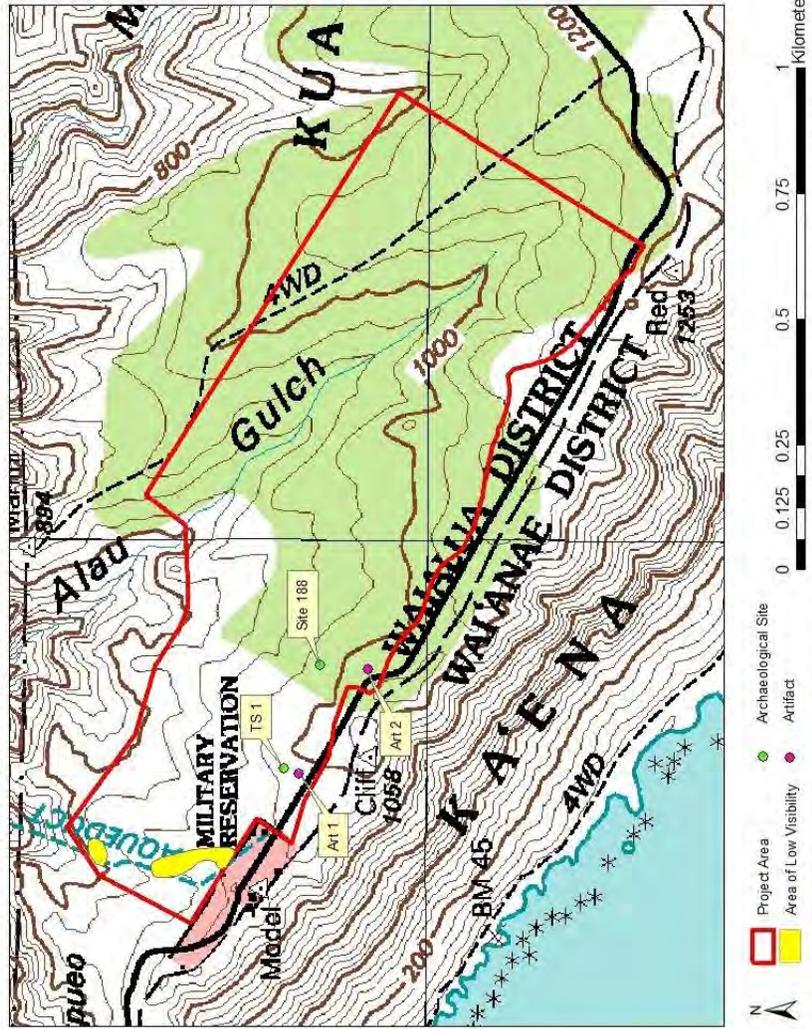


Figure 1. The Survey Area on a 7.5 minute U.S. Geological Survey 2013 Ka'ena quadrangle map showing archaeological sites, artifacts, and areas of low visibility.

Geotechnical Testing at Kuaokalā Ridge
AIS Summary

Methods

Pedestrian survey and mapping were carried out between July 6 and 17, 2018. The survey was completed by Secretary of the Interior (SOI) qualified archaeologists at Keala Pono Archaeological Consulting, assisted by an SOI qualified archaeologist from HDR. The ground surface was visually inspected for surface archaeological remains, with transects walked for the entire project area. Archaeologists were spaced approximately 8 m apart. Of the approximate 160-acre survey area, 100 percent was covered on foot. Vegetation was variable, consisting of large tracts of grass pastureland with some areas of taller grass and trees such as koa haole. Transects and archaeological sites were recorded with a 3 m-accurate Garmin GPSmap 62st.

Results

Two archaeological sites were found: the previously-recorded Moka'ena Heiau (Site 188) and a possible terrace, labeled as Temporary Site 1 (TS 1) (Figure 1). In addition, two historic bottles (Artifacts 1 and 2) were found on the surface, unassociated with either site.

TS 1

Site TS 1 consists of a possible terrace and alignment. The terrace measures 2.7 m long, 3.7 m wide, and 60 cm tall (Figures 2 and 3). It is composed of stacked stones and cobbles and is roughly rectangular in plan (Figure 2). The alignment is slightly uphill of the terrace and appears to be aligned with the terrace wall. It measures 1.1 m long, 70 cm wide, and 15 cm tall. It is composed of cobbles that are aligned in roughly a c-shape (Figure 3). The site may be a traditional (pre-contact Hawaiian) agricultural or habitation feature. It is in poor condition and is not well defined. It is recommended that additional information is collected for Site TS 1 prior to any future construction at this location. Excavation at this site could yield information that would inform on the site's specific age and function.



Figure 2. TS 1 possible terrace, facing southeast.

Geotechnical Testing at Kuaokalā Ridge
AIS Summary



Figure 3. Site TS 1 possible terrace and alignment, plan view drawing.

Moka'ena Heiau, Site 188

Site 188 is Moka'ena Heiau. The heiau is a traditional Hawaiian ceremonial site that was previously documented archaeologically, first by McAllister (1933) and then by Hammatt and Borthwick (1987). Located at an elevation of 366 m (1,200 ft.), McAllister, who conducted an island-wide archaeological survey of O'ahu in the 1930s described this as being the heiau located at the highest elevation on O'ahu.

The current condition of the heiau is roughly consistent with earlier maps and descriptions. McAllister (1933:127) described the heiau as a "3-division structure" measuring 22.9 by 10.7 m. Hammatt and Borthwick (1987:41) noted "4 distinct terraces" measuring 23.8 m by 10.7 m. The current assessment considers the uppermost boulder area as a terrace and is thus in agreement with Hammatt and Borthwick's (1987) count of four terraces. Including this boulder area and possible wall fall around the structure, the current measurements are approximately 28 m long and 12 m wide (Figures 4 and 5).

The uppermost terrace is composed mainly of boulders, some of which are piled (Figure 5). The middle two terraces include intact wall faces which are made up of stacked stones and cobbles with a few boulders. The tallest height of the intact facing is 1.2 m. The walls of the lowest terrace are primarily made up of piled stones and cobbles. Several offerings of branch coral

Geotechnical Testing at Kuaokalā Ridge
AIS Summary

were observed within the structure and in a stone-lined pit, and a possible kū'ula (stone image used to attract fish) is located at the base of one of the walls (Figures 5 and 6). A stone with the appearance of a long face was noted within the third terrace (Figure 5). Hammatt and Borthwick (1987) also observed a row of possible post holes, two inches in diameter each, on the third terrace, but these were not identified in the current survey.

The site as a whole is in good condition, with several intact sections as well as some areas where walls have fallen. A significant aspect of this heiau is its viewshed. Situated at 1,200 ft. above sea level, this is the highest documented heiau on O'ahu (McAllister 1933:127), and its position affords sweeping views of the landscape and ocean. There is a prominent large boulder on the ridge to the northeast that may also be associated with the site. The site is currently demarcated by barbed wire fencing that is in disrepair, with damaged sections on the northwest and southeast corners where cattle can enter from adjacent fields (see Figure 5).

It is recommended that Site 188, Moka'ena Heiau, be avoided during any future construction. If construction is to occur in the vicinity, a preservation plan should be completed for the site, with the viewshed of the heiau considered. Although outside the project area, the prominent boulder visible from the heiau should be examined for cultural significance if the heiau's view plane is to be affected. Access should be made available to the heiau for cultural practitioners and other interested community members. The barbed wire fence that surrounds the site is currently in disrepair and should be fixed and maintained to ensure that cattle do not damage the heiau. The fence is very close to the site boundaries, particularly on the south (see Figure 5) and should be moved farther away to provide an adequate buffer. In addition, Site 188, Moka'ena Heiau, should be nominated to both the National and Hawai'i Register of Historic Places.



Figure 4. Site 188, Moka'ena Heiau, facing east.

Geotechnical Testing at Kuaokalā Ridge
 AIS Summary

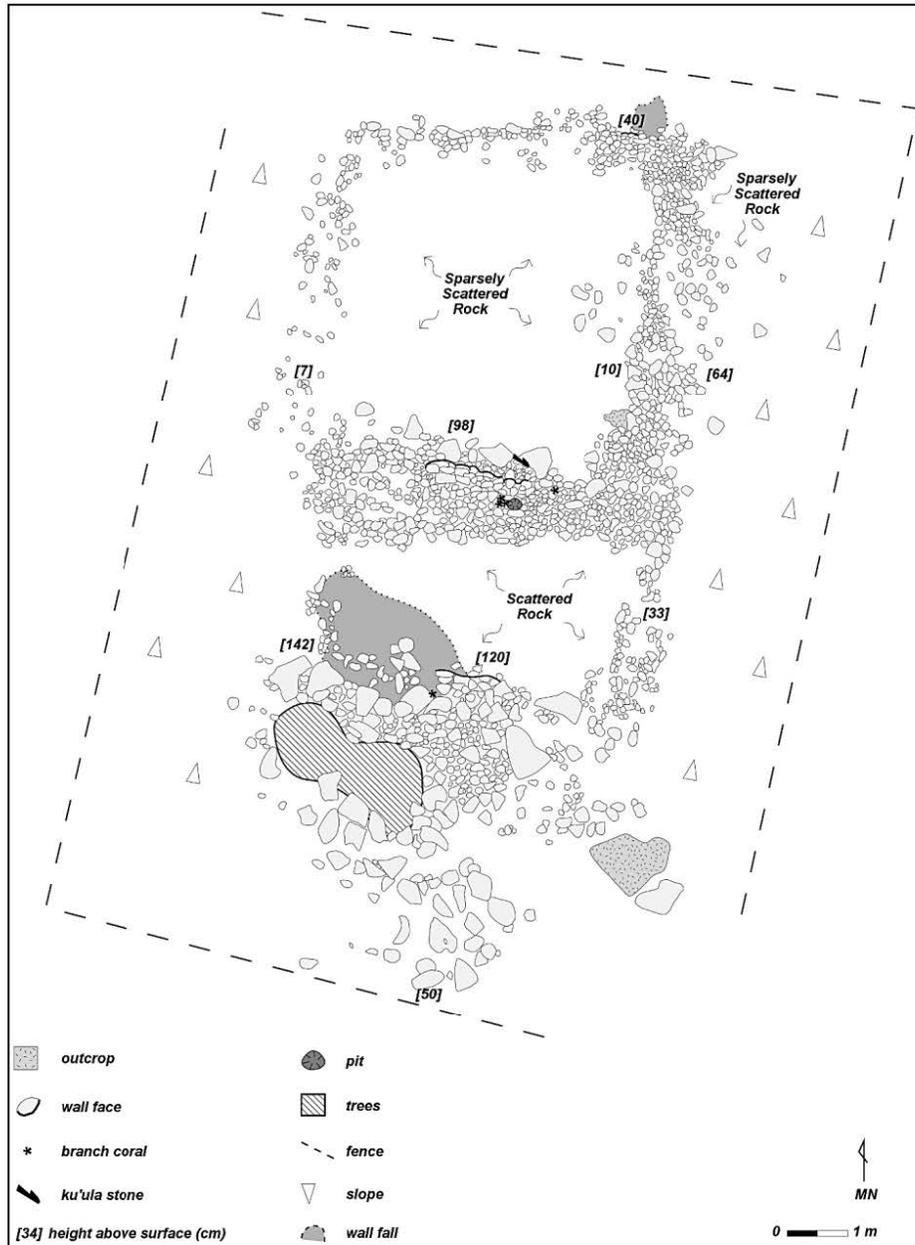


Figure 5. Site 188, Moka'ena Heiau, plan view drawing.

Geotechnical Testing at Kuaokalā Ridge
AIS Summary



Figure 6. Site 188, Moka'ena Heiau, possible ku'ula stone, plan view.

Significance Determinations

To determine if a historic property is “significant” under Hawai'i Administrative Rules (HAR) for historic preservation, or is eligible for NRHP listing, it must be assessed for significance according to HAR §13-284-6(b) and National Register Bulletin 15, respectively.

Because of its deteriorated state, Site TS 1 does not retain integrity of workmanship and feeling, and is therefore not significant. Site 188 does possess integrity of location, design, setting, materials, workmanship, feeling, and association. It is significant under Criteria D and E of HAR §13-275-6(b) for its potential to yield further information and for its importance to the history and cultural identity of native Hawaiians. The recommended project effect determination is no historic properties affected, as geotechnical testing will take place well away from both sites. An archaeological monitoring plan should be accepted by the SHPD in advance of geotechnical testing. The plan should outline temporary preservation measures that will be implemented during the geotechnical testing. Even though the geotechnical boring will not affect either site, it is important to educate the testing team on the location of the sites and significance of the heiau and to install temporary buffers around the sites to ensure that they will not be disturbed.

If future construction will affect either site, further recommendations include the following. Additional information should be collected for Site TS 1; excavation at this site could yield information that would inform on the site's specific age and function, even though the site is not significant because it lacks integrity. It is recommended that Site 188, Moka'ena Heiau, be avoided during any future construction. If construction is to occur in the vicinity, a preservation plan should be completed for the site, with the viewshed of the heiau considered. Although

Geotechnical Testing at Kuaokalā Ridge
AIS Summary

outside the project area, the prominent boulder visible from the heiau should be examined for cultural significance if the heiau's view plane is to be affected. Access should be made available to the heiau for cultural practitioners and other interested community members. The barbed wire fence that surrounds the site is currently in disrepair and should be fixed and maintained to ensure that cattle do not damage the heiau. The fence is very close to the site boundaries, particularly on the south, and should be moved farther away to provide an adequate buffer. In addition, Site 188, Moka'ena Heiau, should be nominated to both the National and Hawai'i Register of Historic Places.

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C.2 Consultation Meeting Fact Sheet

MISSILE DEFENSE AGENCY



Geotechnical Testing Consultation

<https://www.mda.mil>
mda.info@mda.mil

5700 18th Street, Bldg 245
Fort Belvoir, VA 22060-5573

Geotechnical Testing at Kuaokalā Ridge – Section 106/Chapter 6E Consultation

The Missile Defense Agency (MDA) proposes to conduct geotechnical testing on Kuaokalā Ridge to determine constructability and support site selection for the Homeland Defense Radar – Hawaii (HDR-H) project. The geotechnical testing is a separate undertaking from the HDR-H project. The testing will occur at Ka'ena Point Satellite Tracking Station (KPSTS) and on adjacent State land managed by the Department of Land and Natural Resources (DLNR), Division of Forestry and Wildlife. The MDA is coordinating with DLNR to obtain a Right-of-Entry (ROE) permit for the testing. As a federal undertaking, the geotechnical testing is subject to Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended) and its implementing regulations at 36 CFR § 800. Because the geotechnical testing will occur on State land and requires a ROE permit from DLNR, the undertaking is also subject to Hawai'i Revised Statutes Chapter 6E and Hawai'i Administrative Rules 13-275.

Project Overview

The geotechnical testing will consist of approximately 10 soil test borings and 3 auger borings.

- Soil test borings will be 4 to 6 inches in diameter and up to 100 feet deep
- Lower portion of soil test borings will be backfilled with a cement-bentonite grout, and the top portion backfilled with drill spoils and on-site soils
- Auger borings will be 12 inches in diameter or smaller and approx. 6 feet deep
- Each auger borehole will be backfilled with drill spoils
- The MDA will avoid all known historic properties during geotechnical testing
- The MDA will conduct archaeological monitoring during the testing



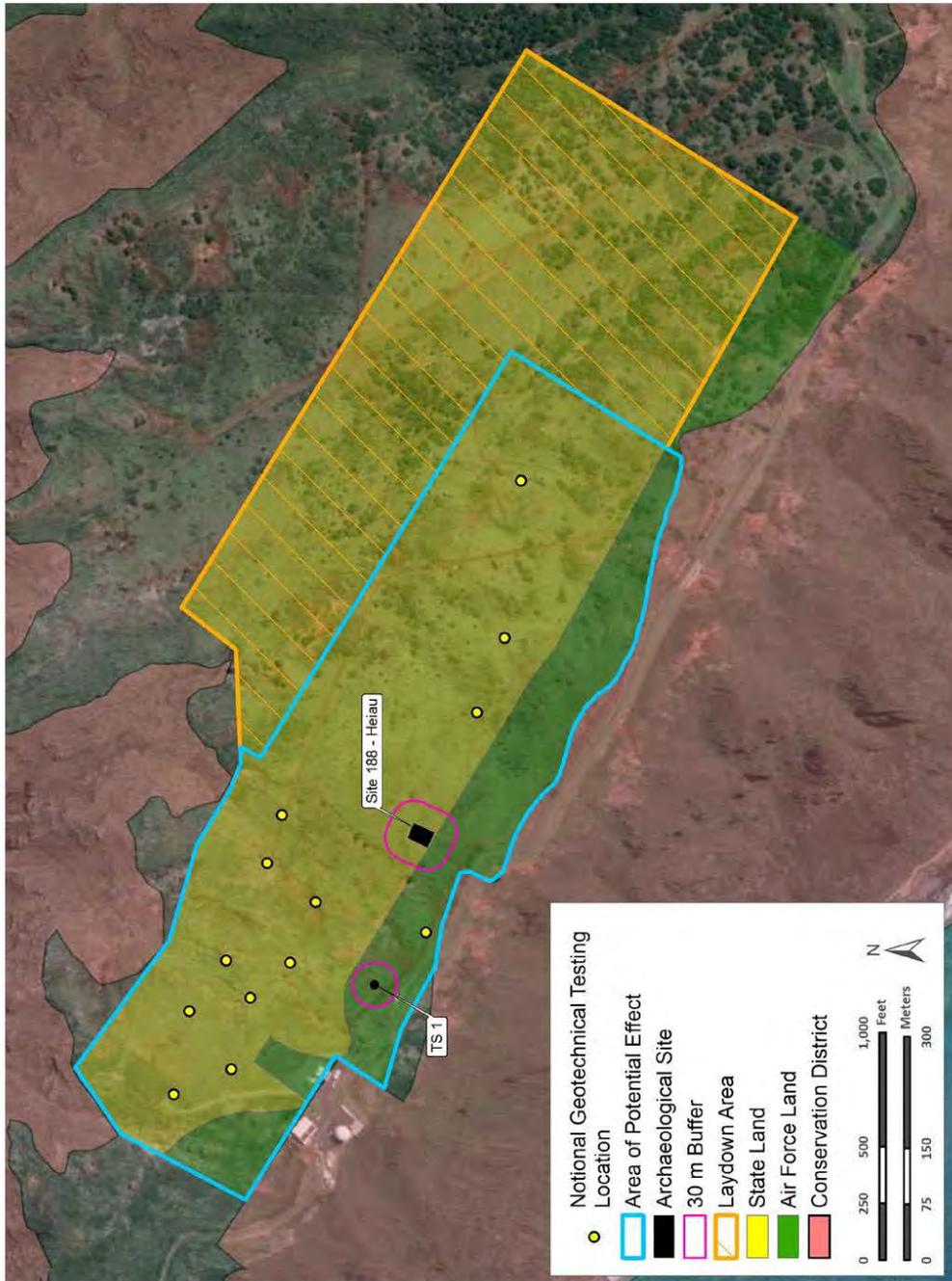
Example of truck-mounted drill rig for geotechnical testing.

The *Area of Potential Effects* is the "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties" (36 CFR § 800.16(d)).

Area of Potential Effects

The HDR-H candidate site at Kuaokalā Ridge totals approximately 160 acres, composed of approximately 28 acres of KPSTS existing leased land, approximately 67 acres of State land, and approximately 65 acres of State land that would be used as a construction laydown area to stage equipment and vehicles. The revised Area of Potential Effect (APE) includes the area where the proposed geotechnical testing would occur in approximately 22 acres of KPSTS existing leased land and the approximate 67-acre parcel of State land. The approximate 89-acre APE is identified in blue in the map on the next page.

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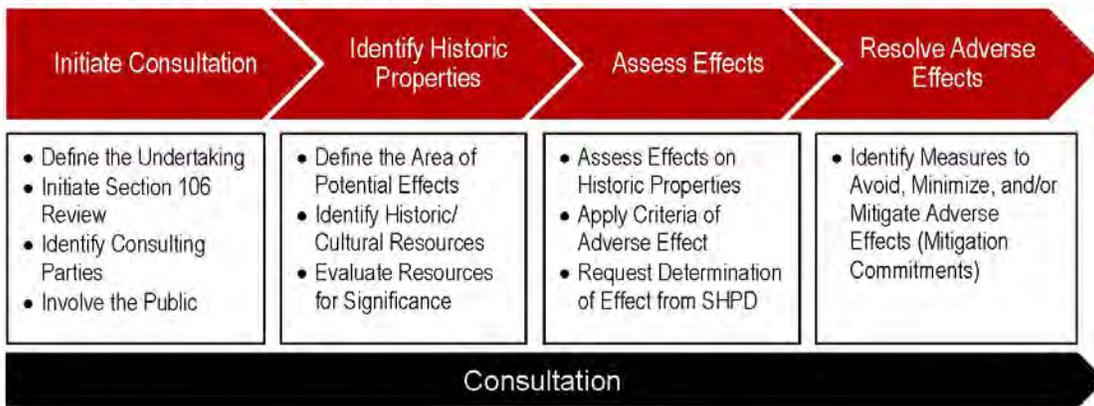
Geotechnical Testing Area of Potential Effect (outlined in blue) at Kuaokalā Ridge, with a 30-meter buffer around archaeological resources, and notional boring locations.

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Section 106 and Chapter 6E

Section 106 of the NHPA and Chapter 6E require federal and state agencies, respectively, to assess the effects of their actions on significant cultural resources, termed “historic properties” in Section 106 and referred to as “significant historic properties” under Chapter 6E. Agencies must consult with the State Historic Preservation Division (SHPD), Native Hawaiian organizations, local government representatives, and other identified consulting parties regarding effects on historic properties.

Section 106 and Chapter 6E Review Process



What are historic properties?

Historic properties are buildings, sites, districts, structures, or objects that:

- ✓ Are typically more than 50 years old; AND
- ✓ Meet at least one of the criteria of significance for the National Register of Historic Places or Hawaii Register of Historic Places:
 - A. Associated with events important in history;
 - B. Associated with people important in history;
 - C. Embody distinctive architectural or engineering characteristics, represent the work of a master, or possess high artistic value;
 - D. Potential to yield information important to understanding the past
 - E. (Hawaii Register Only) Associated with cultural practices, traditional beliefs, events, or oral accounts important to an ethnic group's history and cultural identity; AND
- ✓ Have historic integrity, which is the ability of a property to convey its significance based on its location, design, setting, materials, workmanship, feeling, and association.

What are Adverse Effects?

Adverse effects diminish the integrity of a property. Effects can be direct or indirect and include the following:

- Physical destruction or damage
- Alteration inconsistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties
- Relocation of the property
- Change in the character of use or setting
- Introduction of incompatible visual, atmospheric, or audible elements
- Neglect and deterioration
- Transfer, lease, or sale out of federal/state control without adequate preservation restrictions.

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Known Cultural Resources

Previous reconnaissance surveys in the project area identified one site known to be in the APE, the Moka'ena Heiau, also known as Site 188. The site was first recorded by J. Gilbert McAllister during his island-wide reconnaissance survey in 1929 (McAllister 1933). Site 188 is eligible for listing in the National Register of Historic Places and the Hawaii Register of Historic Places, and is culturally significant as a traditional Hawaiian ceremonial site. The heiau, which is on State land, is at the highest elevation of any on O'ahu.

The MDA contracted an archaeological inventory survey of the HDR-H candidate site, including the entire geotechnical testing APE. The survey was completed on July 17, 2018 and identified one previously unknown archaeological site that is within the revised APE: a possible terrace and alignment. The site may be a traditional Hawaiian agricultural or habitation site. A consulting party has also associated TS-1 with the training of Kahuna to move pohaku using their oli. The site has been given the temporary designation TS-1. The survey also included detailed mapping of the Moka'ena Heiau.



Photo of the Moka'ena Heiau, Site 188, at Kuaokalā Ridge

The MDA Needs Your Input

The MDA is consulting with Native Hawaiian organizations and other interested parties to learn what historic properties are in the APE, how they are significant, and also whether the proposed geotechnical testing will adversely affect historic properties that are significant to Native Hawaiians and local communities. In accordance with the NHPA and Chapter 6E, we request your input on the following topics:

- Identification of Historic Properties
 - Do you know of potential historic or cultural resources in the APE that were not identified in the AIS?
- Evaluation of Historic Properties
 - Do you have new or additional information about TS-1 or the Moka'ena Heiau?
 - Are sites TS-1 and the Moka'ena Heiau significant to you or your organization?
 - Is the significance of these sites adequately addressed in the AIS?
- Assessment of Effects
 - Would geotechnical testing have indirect effects on TS-1 or the Moka'ena Heiau?
 - Do you have any recommendations for the MDA's commitment to conduct archaeological and cultural monitoring of the geotechnical testing?

Comments should be submitted via postal mail or email to the contact information below by October 24, 2018:

Missile Defense Agency/Directorate (FDOE)
Attn: Buff Crosby
Bldg 5224 Martin Rd.
Redstone Arsenal, AL 35898
Email: buff.crosby@mda.mil

While the focus of this consultation is specific to the Section 106 and Chapter 6E reviews, the MDA also seeks to develop relationships with consulting parties more broadly that will contribute to improved sharing of information and ideas related to this and other projects in Hawaii, including the forthcoming HDR-H consultation.

Thank you for your participation.

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C.3 Consultation Meeting Presentation



The slide features a header with the MDA logo on the left and a satellite image of Earth on the right. The main content is centered text on a white background.

Welcome

**Consultation Meeting for
Geotechnical Testing
at Kuaokalā Ridge**

1



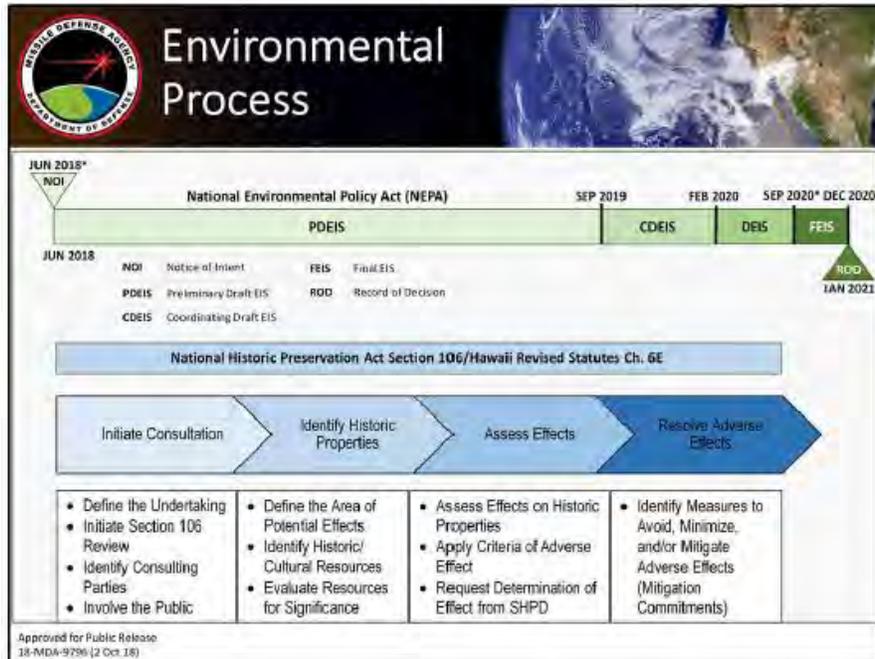
The slide features a header with the MDA logo on the left and a satellite image of Earth on the right. The main content is a bulleted list on a white background.

**Meeting
Agenda**

- Welcome Statement from Rear Admiral Hill
- Pule
- Introductions
- MDA Presentation
- Consultation Discussions/Questions and Comments
- Input on Future HDR-H Consultation Format
- Closing

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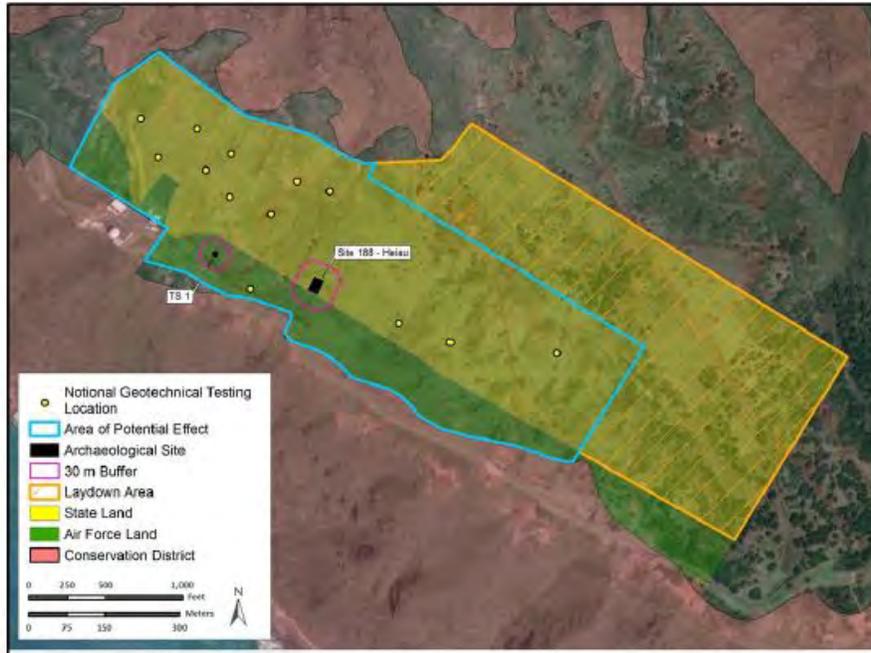
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Project Description

- MDA proposes to conduct geotechnical testing at Kuaokalā Ridge to support site selection for the Homeland Defense Radar-Hawai'i (HDR-H) project.
- Approximately 10 Soil Test Borings
 - 4 to 6 inches in diameter, up to 100 feet deep
 - Borings will be backfilled with bentonite (type of clay) and soil
- Approximately 3 Auger Borings
 - 12 inches in diameter or smaller, approximately 6 feet deep
 - Backfilled with soil
- As requested during consultation, the MDA will return soils to site following analysis, to the extent practicable.

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 MDA Actions Response to Comments	
Comment Topic	Response -Summarized
Communication & Consultation	MDA is providing an additional comment period & hosting additional meetings
Area of Potential Effect (APE)	MDA has reduced the APE to only the area affected by the Phase 1 geotechnical testing (from 160 acres to 89 acres)
Identify Historic Properties	Archaeological Inventory Survey (AIS) conducted in area
	MDA is arranging to conduct a Traditional Cultural Properties (TCP) study in the near future
	Moka'ena heiau is recommended eligible for both National Register of Historic Places (NRHP) and Hawai'i Register of Historic Places (HRHP) based on significant traditional association
Effects on Historic Properties	MDA will address concerns about cumulative impacts from HDR-H during future consultation. If other federal or state projects are proposed in the future, they will also require separate consultation.

 **Archaeological Inventory Survey** 

- Site 188, Moka'ena Heiau
 - Previously documented traditional Hawaiian ceremonial site
 - Highest elevation of any heiau on O'ahu
 - Four terraces
 - Observed branch coral offerings in a stone-lined pit
 - Possible ku'ula at the base of one wall


Moka'ena Heiau ↑


Possible Ku'ula →

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 **Archaeological Inventory Survey** 

- Site TS 1
 - Possible terrace and stone alignment
 - Terrace is composed of stacked stones and cobbles, is roughly rectangular
 - C-shaped stone alignment is slightly uphill of the terrace, aligned with the terrace wall
 - Poor condition, not well defined
 - A consulting party shared the alignment is associated with Kahuna protégés using oli to move pohaku as a final test to become a true Kahuna


Possible Terrace

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Protective Measures

- The MDA will avoid known historic properties during geotechnical testing
 - 30 meter protective buffer will be fenced or flagged around identified sites
- The MDA will conduct archaeological and cultural monitoring of all ground disturbance during the testing.
 - Local archaeologists from Keala Pono Archaeological Consulting
 - Hawaiian cultural experts contracted through Garcia and Associates
 - Monitoring will also support identification of buried archaeology for future HDR-H consultation.

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Questions and Comments

- Are there other historic properties or cultural resources in the APE?
- How are these significant to you?
- Will geotechnical testing affect these historic properties or cultural resources?
- Recommendations on protective measures?
- Other recommendations?



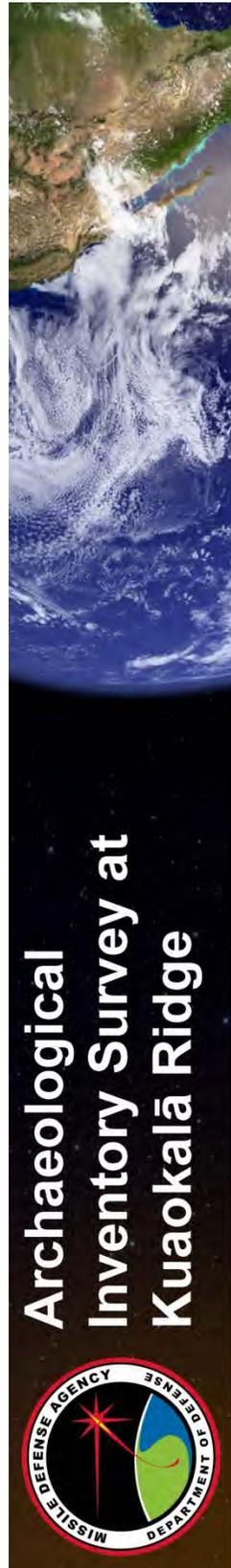
Next Steps

After this meeting, MDA will:

- Review all submitted comments – written comments should be submitted by October 24, 2018 to be included in our submittal to SHPD
- Submit to SHPD:
 - Revised Draft Archaeological Inventory Survey Report
 - Summary of consultation and comments
 - Finding of effects
 - Archaeological Monitoring Plan
- Begin geotechnical testing upon SHPD concurrence

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C.4 Consultation Meeting Survey Poster

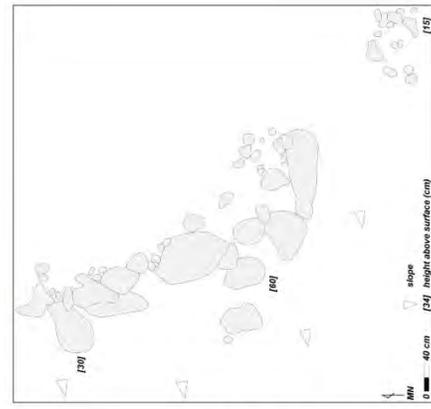


Site 188, Moka'ena Heiau facing east (above) and plan view (right)

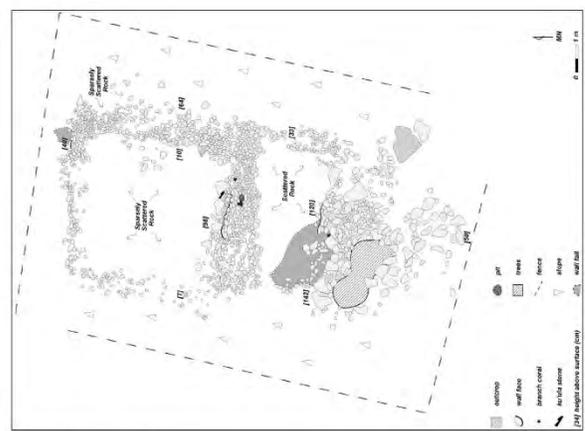
The Moka'ena Heiau is a National Register-eligible traditional Hawaiian ceremonial site at the highest elevation of any heiau on O'ahu. The heiau consists of four terraces that total 28 meters long by 12 meters wide. Several offerings of branch coral were observed within the structure. A possible ku'uila is at the base of one of the walls. The site has sweeping views of the landscape and ocean. A prominent large boulder on the ridge to the northeast (not shown) may be associated with the site.

MDA contracted Keala Pono Archaeological Consulting to conduct an Archaeological Inventory Survey of the Geotechnical Testing Area of Potential Effect. The survey was completed on July 17, 2018. Keala Pono performed detailed mapping of the Moka'ena Heiau and identified a newly identified site temporarily designated TS 1.

Site TS 1 is a possible Terrace and stone alignment. The terrace is 2.7 meters long by 3.7 meters wide and is composed of stacked stones and cobbles. The c-shaped alignment is slightly uphill of the terrace. The site, which is in poor condition, may be a traditional agricultural or habitation feature.



Possible stone alignment at TS 1 (above and bottom left). Overview of possible terrace at TS 1, facing southeast (bottom right)



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D

Comment Response Summaries

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D.1 Response to Comment Period 1

Geotechnical Testing at Kuaokalā Ridge Comments and Responses

MDA Response to Comments Received on the Proposal to Conduct Geotechnical Testing at Kuaokalā Ridge

Comments received to date in consultation on the proposed geotechnical testing at Kuaokalā Ridge are summarized below along with the Missile Defense Agency's (MDA) responses to these comments. Comments substantive to the historic preservation review process under Section 106 of the National Historic Preservation Act (NHPA) and Hawai'i Revised Statutes (HRS) Chapter 6E are organized by topic. The MDA received a large number of comments not related to the historic preservation process. The MDA has responded to these comments to provide clarification or additional information where appropriate, included at the end of this document. The MDA appreciates the comments received and looks forward to any further comments you may have.

1. General Communications and Consultation

- **Comments Summary:** The MDA did not do enough to inform people of the meetings and comment period. There are people for whom these lands are their kuleana, and organizations that care for Ka'ena Point that were not included. The comment period was too short and should have been extended more than 1 day beyond the consultation meetings. There were requests for additional time to comment and additional meetings. Some meeting participants were concerned that the MDA representatives at the meetings would not be able to effectively communicate to decision makers the passion and spirituality the participants expressed with regard to the issues discussed.

MDA Response: The MDA is opening another comment period with additional meetings to provide consulting parties additional time to comment and consult under Section 106 and Chapter 6E. The MDA has looked to multiple sources to identify potential interested consulting parties, including the Department of the Interior's list of Native Hawaiian Organizations (NHOs), updated May 2018; an NHO outreach report completed for US Air Force (USAF) Kaena Point Satellite Tracking Station (KPSTS) that identified parties that should be included in such consultations for the region; and comment submittals from the concurrent EIS process. The MDA cross-referenced these contacts with current organization websites to verify current contact information such as mail and email addresses. The MDA's initial correspondence requested that recipients notify the MDA of any additional parties that should be consulted, which are now included in this mailing. Further, mailings were sent via certified mail to ensure delivery receipts. The MDA has cross-referenced undeliverable addresses and attempted to update those addresses. For any organization that had a publically available phone number, the MDA attempted to make contact via phone in order to verify receipt of information and request parties to attend the consultation meetings. Since the initial correspondence, the MDA has requested further assistance from the State Historic Preservation Division (SHPD) and the Office of Hawaiian Affairs (OHA) to identify any additional potentially interested parties and to help verify contact information.

The MDA understands that participants are concerned about their voices and spirituality being understood by decision makers. Both meetings were transcribed so that the MDA

Geotechnical Testing at Kuaokalā Ridge
Comments and Responses

could accurately capture the comments of the meeting participants with accuracy and context.

2. Area of Potential Effect

- **Comment Summary:** The Area of Potential Effects (APE) is too large for the action (i.e. all of the testing locations are concentrated in one portion of the APE). Approval of the testing within the entire parcel would give the MDA or anyone else a green light to construct anywhere in the parcel without further review. For example, if the location was not selected by the MDA for development, the results of this testing could be used for a future project (including housing or commercial development) and still result in loss of land.

MDA Response: The original 160-acre APE was defined with reference to the Kuaokalā Ridge candidate site being considered under the separate, but related, Homeland Defense Radar – Hawai'i (HDR-H) project. As described in previous correspondence and meetings, the geotechnical testing at Kuaokalā Ridge is needed to determine constructability and inform the site selection process for the HDR-H Environmental Impact Statement. The 160-acre candidate site consists of approximately 28 acres of existing USAF leased land that would be used for road access to the proposed HDR-H project area, approximately 67 acres of State land where the HDR-H project would be located if Kuaokalā Ridge is selected as the deployment location, and approximately 65 acres of laydown area which would be used to stage equipment and vehicles during construction. As shared at previous consultation meetings, the proposed geotechnical testing that is the subject of the present consultation would only occur in a portion of this area: approximately 22 acres of existing USAF leased land and the approximate 67-acre parcel of State land where the HDR-H could be constructed. The MDA agrees with the commenters that the APE for the geotechnical testing project should be specific to the actual location of proposed testing and has revised the APE as the 89 acre total area (including USAF and State land). A map of the revised APE is provided separately.

Under Section 106 and Chapter 6E, the APE of an undertaking must be defined based on the potential effects of that specific undertaking. Therefore, when the MDA initiates consultation under Section 106 and Chapter 6E for the HDR-H project, the MDA will define a new APE that is appropriate for the potential effects of that project, will conduct consultation with SHPD, NHOs, and other consulting parties, and seek input regarding the project's effects on historic properties.

Federal and State agencies must comply with Section 106 and Chapter 6E, respectively, for each action they undertake that has potential to effect historic properties. Should the Kuaokalā Ridge site not be selected for deployment of the HDR-H, then no other Department of Defense or other federal entity would be able to use the results of the geotechnical testing without first conducting new Section 106 and Chapter 6E consultations. Likewise, any state or commercial entity interested in using land in the APE would also be required by law to comply with the State's right-of-entry and consultation processes.

Geotechnical Testing at Kuaokalā Ridge
Comments and Responses

3. Identification of Historic Properties

- **Comment Summary:** An Archaeological Inventory Survey (AIS) is needed in the project area, preferably by a Hawaiian firm (one commenter recommended a specific firm, Keala Pono Archaeological Consulting). All archaeological studies should be completed by one firm. The Moka'ena Heiau must be re-surveyed and should be cleared of vegetation so that it can be mapped. How was the archaeological firm selected? If the survey relied on previous surveys it would be inadequate. There are many unrecorded cultural sites in the area.

MDA Response: The MDA contracted Keala Pono, a Native Hawaiian-owned company, to conduct the AIS. The AIS was completed in July 2018. The firm was selected from companies permitted to do archaeology in Hawai'i based in part on their familiarity with the project area and availability. The AIS involved a pedestrian walk-over across the 160-acre Kuaokalā Ridge HDR-H candidate site, which included the 67-acre geotechnical testing APE. The survey was conducted by archaeologists meeting the Secretary of the Interior's Professional Qualification Standards for archaeology. The survey included hand cutting of vegetation and detailed mapping of the heiau and a new archaeological site identified during the AIS as Temporary Site 1 (TS-1). A brief summary of the AIS is provided in a separate document and is provided in full at the project website: <https://www.mda.mil>.

- **Comment Summary:** The entire Kuaokalā Ridge is a culturally sacred area. Moka'ena Heiau is part of a traditional cultural landscape (TCL). A TCL/Traditional Cultural Properties (TCP) survey is needed for the area. It should look at Moka'ena as part of a larger cultural complex which also would include Pu'u Pueo (northwest of the APE); Leina a Ka 'Uhane (one of the most significant sites on O'ahu associated with the departure of souls to the afterlife); Pohaku Lana'i, Puokalei'ne'au, Kukanioko, Pohaku Kaua'i and other sites between Pu'u Pueo and Moka'ena, including but not limited to the areas up mauka and sites along the shoreline. There are sites within Ka'ena that have connections between mauka and makai. Sites in this area are steeped on mo'olelo, including those associated with the hero Maui and the relationship between Ka'ena Point and Kaua'i.

MDA Response: The MDA understands the Moka'ena Heiau may be part of a TCP/TCL that incorporates other sites within the Ka'ena Point landscape. The MDA is arranging to conduct a TCP study in the near future (2018-2019) as part the HDR-H EIS and Section 106/Chapter 6E consultation. It is the MDA's opinion that all cultural sites in the 67-acre geotechnical testing APE that may be part of this landscape were identified during the AIS, and considering the MDA's commitment to avoid these resources and provide archaeological and cultural monitors during testing, it is not necessary that the TCP study be completed before the proposed geotechnical testing can proceed.

- **Comment Summary:** The Moka'ena Heiau is a temple sacred to the Kanenuiakea worshippers, an indigenous religion recognized by the International Association for Religious

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Freedom. The temple is and was the site of sun worship. The path of the sun, shadows during solstices, the viewshed to the ocean, and an unobstructed view of the sky are key elements that must be kept intact for cultural purposes. Lineal descendants attribute their Kupuna, ancestors that came to O'ahu from Kaua'i, with the construction of Moka'ena Heiau. The heiau is also associated with the connections between O'ahu, Kaua'i, and the channel between them, referred to during consultation as "the vine that binds." While some commenters suggested the mana at Moka'ena Heiau might be broken since unknown actions have taken place there since the USAF Kaena Point Satellite Tracking Station has restricted access, others stated the mana is intact. Moka'ena Heiau (and Leina a Ka 'Uhane) should be nominated to the National Register of Historic Places (NRHP) and Hawai'i Register of Historic Places (HRHP). These nominations should be a pre-requisite for further consultation.

MDA Response: Comments on the significance of the Moka'ena Heiau were incorporated into the assessment of the site's significance and eligibility for NRHP and HRHP listing in the AIS. The heiau is recommended eligible for both the NRHP and HRHP based on significant traditional association. Information shared by consulting parties regarding the heiau's significance will also be incorporated in the TCP survey and cultural impact assessment associated with the HDR-H project. The MDA notes that under Section 106 of the NHPA, properties that are eligible for listing in the NRHP are afforded the same consideration as listed properties.

- **Comment Summary:** There is a family stone with the Helenihi name, placed in 1905.

MDA Response: The AIS did not identify a family stone within the survey area, and it does not appear the stone is within the APE. The MDA will coordinate with the commenter to determine where the stone is located and ensure the undertaking does not disturb the stone.

- **Comment Summary:** TS-1 is archaeological evidence of people practicing moving pohaku using their minds and oli. To become a kahuna, one has to demonstrate they can move pohaku, which comes from the resonance of your voice and the intonation.

MDA Response: Information on the possible function and significance of site TS-1 was considered in the AIS.

4. Effects on Historic Properties

- **Comment Summary:** Moka'ena Heiau is connected to the ridge, the entire area is connected. One commenter suggested there should be at least a 100 meter buffer around the heiau. Another said no buffer would be large enough to prevent impacts. A third commenter suggested the size of the equipment and borings would not affect the sites. Commenters noted that any construction that blocks the sun or interferes with the shadows at Moka'ena Heiau and below the heiau along the ridge will adversely affect the site, modern religious practices, and cultural customs.

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MDA Response: The MDA agrees that current fencing around Moka'ena Heiau is insufficient to prevent site impacts. After considering the input received, the MDA believes a 30-meter buffer will be sufficient to protect the heiau and its surroundings, noting that current and previous archaeological testing at the heiau indicates that no buried archaeological deposits are present. The MDA will also implement a 30-meter buffer around site TS-1 even though this site has not been recommended eligible for NRHP listing. The MDA will install temporary construction fencing or flagging to mark the buffer and project personnel conducting the testing will be prohibited from entering the buffer zone around each site. Further, Hawaiian archaeological and cultural monitors during the geotechnical testing will ensure that activities do not intrude within the buffers and will provide cultural sensitivity training for personnel conducting the testing.

- **Comment Summary:** This project will invite additional military construction in the vicinity. Construction (of the HDR-H facility) and future projects will have cumulative effects on Leina a ka 'Uhane, which is connected to Moka'ena Heiau. The construction will affect the mana up on the ridge, and affect Leina a Ka 'Uhane as the departure point for our souls.

MDA Response: The MDA understands that there are concerns about construction that may follow from the geotechnical testing, particularly from the HDR-H project. However, the present undertaking is the geotechnical testing required to determine whether the Kuaokalā Ridge site is suitable from a constructability standpoint. Given the 30-meter protective buffers around the two identified sites, along with archaeological and cultural monitoring, the MDA believes the geotechnical testing will not directly affect Moka'ena Heiau. The MDA will consider these comments regarding the cumulative effects of construction again once consultation for the HDR-H project is initiated and when assessing the impacts of that action.

- **Comment Summary:** Archaeological and cultural monitoring is required. Cultural monitoring must be performed by Hawaiian cultural specialists. There should be an advisory group that helps to counsel the program.

MDA Response: The MDA has committed to conduct archaeological and cultural monitoring, and has submitted an Archaeological Monitoring Plan to the SHPD. Archaeologists will be permitted to work in Hawai'i and will be led by an individual meeting the Secretary of the Interior's Professional Qualification Standards for archaeology. The cultural monitor will be a Hawaiian cultural specialist with generational or cultural affiliation with the project area, will have familiarity with cultural properties in the area, and will have sensitivity and the ability to represent and communicate with the MDA on behalf of Native Hawaiians. The monitors will be required to be present wherever there is ground disturbance and will have authority to stop the testing in an area if archaeological materials or human remains are identified on ground surfaces, in excavated soils, or within boring holes. If historic properties or human remains are found, they will be protected while the MDA halts activities, conducts additional consultation, and develops an action plan.

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5. Iwi Kupuna

- **Comment Summary:** Commenters stated there are many burials on the ridge, with one stating her Kupuna were scattered on the ridge, in or near the APE. Others stated there are no iwi kupuna, citing numerous cultural studies that did not find iwi and that most of the ridge has not had cultural activity. Others expressed concern that vibrations from drilling could destroy delicate iwi and could have a negative impact on cave systems within the mountains, many of which are the final resting place for iwi kupuna.

MDA Response: The MDA received mixed input regarding the potential for human burials, or iwi kupuna, in the APE. The AIS did not uncover evidence of iwi kupuna in the 160-acre survey area, which included the APE for the proposed geotechnical testing. Given the proximity of the Moka'ena Heiau and TS-1, and some possibility for human remains and/or cultural materials, the MDA is using both archaeological and cultural monitoring during geotechnical testing. In the unlikely event that remains are identified during geotechnical testing, these will be handled in accordance with federal and state law.

6. Comments Outside of the Section 106/Chapter 6E Reviews

- **Comment Summary:** The entire Kuaokalā Ridge is a culturally sacred area, and drilling into the earth is considered an act of desecration similar to drilling in Arlington Cemetery. Our Gods supported that area. It is not some place that we have built because it is sacred. Our Kupuna own that land. Backfilling with foreign materials (e.g. bentonite) is culturally unacceptable, akin to injecting foreign material into the body of a deity. Are there non-invasive means of determining whether the site is constructible? Soil removed from the site should be returned after analysis.

MDA Response: The MDA is required to use concrete-bentonite or a similar mix to backfill the borings, per the requirements of HAR 13-168-2 and the Hawai'i Department of Land and Natural Resources (DLNR) standards. This is necessary to prevent groundwater contamination and restore geological and hydrological conditions. The MDA is considering the request to return any soils removed from the site following analysis. The MDA will implement this measure to the extent practicable.

- **Comment Summary:** The geotechnical testing project is not conforming with other Hawaiian laws (related to impacts on traditional cultural practices). A Cultural Impact Assessment is required. The MDA needs to consider other environmental impacts such as traffic, noise, and effects on biological resources, including endangered species.

MDA Response: The MDA, in consultation with the Hawai'i DLNR Division of Forestry and Wildlife, has determined the geotechnical testing will not have potential to affect the environment and does not require an Environmental Assessment. Therefore, a Cultural Impact Assessment (as part of an Environmental Assessment) is also not required. The

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MDA will conduct a Cultural Impact Assessment for the overall HDR-H project, which will be incorporated into the associated EIS. The EIS will address traffic, noise, biological resources, cultural resources, and other aspects of the environment.

- **Comment Summary:** A site visit should be held so that community members can see Moka'ena Heiau and Site TS-1.

MDA Response: The MDA plans to organize one or more site visits to the Moka'ena Heiau as part of the overall HDR-H consultation. The MDA will extend the invitation to participate in the site visit to all NHOs contacted for the present consultation.

- **Comment Summary:** The MDA should provide copies of the AIS, the submittal to SHPD, and the presentation given at the meetings held August 1 and 2, 2018.

MDA Response: The MDA has provided a summary of the AIS, included separately, and has posted a copy of the AIS on the project website, <https://www.mda.mil>. Other materials associated with the Section 106 and Chapter 6E consultations have been placed on the website.

- **Comment Summary:** There are sensitive biological species in the project area and surrounding Ka'ena Point area. Species outside the APE may be affected by travel of equipment to and from the testing activities. These species include a rare variety of naupaka and the ohai that grows there is specific to the Ka'ena Point area. There is a tree that grows mauka at Ka'ena that is believed to be an endangered species. How will the MDA know whether endangered Hawaiian plants are present? Biological surveys should be conducted by a native Hawaiian.

MDA Response: The MDA determined, in consultation with the DLNR Division of Forestry and Wildlife, that the geotechnical testing will not have potential to affect threatened or endangered species. The Hawaiian cultural specialists conducting cultural monitoring will also be familiar with plants of traditional or cultural importance. Additional biological studies in conjunction with the U.S. Fish and Wildlife Service and DLNR of the Kuaokalā Ridge project area are planned in association with the HDR-H project. Qualified biologists with experience with Hawaiian species and environments will complete the studies. The MDA will consider the request that native Hawaiians conduct the biological surveys where practicable. The MDA has also begun initial discussions with the U.S. Fish and Wildlife Service to determine whether any threatened or endangered species are present in the APE. To date, no threatened or endangered species have been identified. The nature of the proposed geotechnical testing is very limited (13 soil borings, 4-12 inches wide) and no trees will be impacted or removed.

- **Comment Summary:** A community member and NHO is corresponding with DLNR to inter the remains of a Waialua owl in their custody at the Moka'ena heiau, which is situated on Pu'u Pueo (Owl Point) overlooking Ka'ena Ahupua'a and specifically Leina a Ka 'Uhane. This should be completed as a pre-requisite to consultation.

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MDA Response: This issue is outside of the MDA's jurisdiction. The MDA will provide this comment to DLNR.

- Comment Summary: The MDA should send a letter to the Bishop Museum urging continuing press of their publication entitled "Sites of O'ahu" and/or PDF online on their website for download. This is an extremely valuable cultural resource publication which contains Hawaiian Cultural Sites, including Moka'ena Heiau. Many utilize this publication professionally and personally.

MDA Response: The MDA recommends the commenter submit their comment directly to the Bishop Museum as this is outside the purview of the project.

D.2 Response to Comment Period 2

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**Section 106 and Chapter 6E Consultation on Missile Defense Agency's Proposed
Geotechnical Testing at Kuaokalā Ridge**

Response to Comments Received September to October 2018

The Missile Defense Agency (MDA) has prepared this summary response to comments received between September 21 and October 24, 2018 during MDA's consultation under Section 106 of the National Historic Preservation Act (NHPA) and Hawai'i Revised Statutes (HRS) Chapter 6E on our proposal to conduct Phase I Geotechnical Testing at Kuaokalā Ridge. Comments that are substantive to the historic preservation reviews are organized by topic. MDA also received a large number of comments not related to the historic preservation process for the geotechnical testing undertaking. Many of these are related to a separate undertaking for the Homeland Defense Radar – Hawai'i (HDR-H) project. Responses to such comments, as appropriate, are included at the end of this document to provide clarification or additional information.

1. Area of Potential Effect

MDA did not receive any comments related to the revised definition of the undertaking's Area of Potential Effect (APE), which was reduced to approximately 89 acres where geotechnical testing activities are proposed.

2. Identification and Evaluation of Historic Properties

MDA received comments about the scope of identification efforts, about historic resources in the APE, and about the evaluation of historic properties for listing in the National Register of Historic Places (NRHP) and/or the Hawai'i Register of Historic Places (HRHP).

a. Identification Efforts

- **Comment Summary:** The selection of Keala Pono to conduct the archaeological inventory survey (AIS) was a good choice.

Response: Comment noted.

- **Comment Summary:** MDA should have involved people with lineal ties to the project area in the AIS.

Response: MDA selected the contractor for the archaeological survey based in part on recommendations from the State Historic Preservation Division (SHPD) and public scoping comments for the HDR-H Environmental Impact Statement (EIS). Keala Pono has conducted a number of AISs in the project area and was familiar with the region's traditional and archaeological history. The AIS is being revised to incorporate additional consulting party comments, including those from individuals and organizations with lineal ties to the project area. By doing so, the AIS will incorporate the perspectives of lineal descendants and cultural practitioners that use the APE.

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- **Comment Summary:** MDA needs to conduct a traditional cultural properties (TCP) study. This consultation is like doing an ethnographic study, but the information doesn't go anywhere because it isn't published. A TCP study and a Cultural Impact Assessment (CIA) are needed for this project, which will show the value of this property and give an analysis of why MDA shouldn't be there. (MDA understands this comment to also pertain to the HDR-H project).

Response: Based on the results of the AIS and consultation, MDA believes that the identification efforts carried out to date are sufficient and commensurate with the potential effects of the Phase I Geotechnical Testing undertaking. MDA is planning to conduct a TCP study for the HDR-H undertaking that will seek to identify and evaluate historic properties within that project's APE. MDA will also conduct a CIA for the HDR-H radar project undertaking that seeks to understand how that project will affect native Hawaiian cultural practices and cultural resources. MDA and the Department of Land and Natural Resources have determined that the proposed Phase I Geotechnical Testing is a class of action that is exempt from the Hawai'i Environmental Policy Act under HAR 11-200-8 and therefore a CIA is not required.. Comments received during this consultation are being considered for the present action, but will also inform the historic preservation reviews and environmental impact analysis for the HDR-H. The AIS is also being revised to incorporate additional, relevant consulting party comments and responses.

b. Newly Identified Historic Properties in the Area of Potential Effects

- **Comment Summary:** The area of Kuaokalā Ridge is a cultural landscape significant under multiple significance criteria pursuant to Hawai'i Administrative Rules 13-275-6 and is particularly significant under Criterion "e".

Response: MDA recognizes that the Kuaokalā Ridge area is significant to native Hawaiians due to associations with traditional beliefs, events, and oral accounts and cultural practices, particularly gathering and certain religious practices that are still performed within the landscape today. At this time MDA does not have sufficient information to delineate a cultural landscape and evaluate it for significance under Federal or State law. However, as part of the consultation and EIS processes for the HDR-H project, MDA will gather additional information from consulting parties, along with data from the TCP survey and CIA, to document the extent of the property, its historic significance, and its historic integrity. The area around Kuaokalā and Ka'ena Point is noted as a possible TCP in the AIS, based on input from consulting parties.

c. Evaluation of Historic Properties

- **Comment Summary:** The Moka'ena Heiau was built by a certain class of kahuna at the time of Kamehameha's conquest to provide an early warning of his impending attack on Kaua'i. Kāhuna used the heiau to send messages across the channel between O'ahu and Kaua'i, called Ka'ie'iewaho, "the vine that binds," to inform the people that something was happening. The correct name of the heiau is Moku'ena.

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Response: This information about the significance of Moka'ena Heiau will be incorporated into the AIS. MDA understands that multiple spellings have been used for the heiau in existing documents and oral history, including both Moka'ena and Moku'ena. For consistency, MDA will continue to use the spelling "Moka'ena."

- Comment Summary: Moka'ena Heiau is a fishing shrine, and the kū'ula at the heiau is associated with the story of Kumu Nui Akea and menehune who caught the kūmū fish (goat fish), a highly prized fish in Hawaiian culture. The shrine is associated with a fishing koa for kūmū and other productive fishing areas near Ka'ena Point. The power of the fishing shrine remains today, and is evidenced in newspaper stories from recent history of successful fishing exploits around Ka'ena Point.

Response: This information about the significance of Moka'ena Heiau will be incorporated into the AIS.

- Comment Summary: Moka'ena Heiau is not just the rocks, it is the entire area. The area where the proposed borings are is where the mana, the spirit, the power of the heiau is.

Response: Based on this and other comments received, it appears that the viewshed around the heiau and the mana imbued in the landscape are contributing qualities of the heiau and are important aspects of the heiau setting and associations. Based on guidance provided by the National Park Service for defining boundaries of TCPs, these aspects are more appropriately defined as part of the site's setting than as part of the site boundary. The site boundaries and buffer will be defined in the AIS. The qualities related to viewshed and mana will be incorporated into the site description in the AIS.

- Comment Summary: Cows are desecrating and adversely affecting Moka'ena Heiau. The fence is broken and not effective in keeping the cows out.

Response: MDA is aware the fence around Moka'ena Heiau is in disrepair, and has shared this information with the Department of Land and Natural Resources (DLNR), which is responsible for protecting the heiau. MDA will also work with DLNR to repair the current fence to prevent livestock from entering. Recommendations to repair the fence are included in the AIS. Based on other comments received, it does not appear that the impact from cattle has affected the historic integrity of the heiau or its eligibility for the NRHP and HRHP.

- Comment Summary: The correct name for site TS-1 is Pu'u o Pohaku Hāpaina and this is the name that should be used. The name "Temporary Site 1" is offensive to Native Hawaiians. Pu'u o Pohaku Hāpaina is associated with the construction of Moka'ena Heiau. The heiau was built by kāhuna who used the correct intonation in their oli that resonated in the pohaku (rocks) and lifted them into place with vibration. Before they could participate in the construction of the heiau, the kāhuna had to demonstrate their ability to move pohaku using their oli. They did this demonstration at Pu'u o Pohaku Hāpaina, where they moved a rock from one end of the rock alignment to the other. The word "Hāpaina" in the name of the site refers to the lifting of the rocks.

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Response: MDA will use the name "Pu'u o Pohaku Hāpaina with reference to this site going forward. The site has also been assigned a State Inventory of Historic Places number, 8777, which may appear in some documentation. The information about the history and significance of Pu'u o Pohaku Hāpaina will be incorporated into the AIS.

- Comment Summary: Every site should be recognized as significant. Every site is important, no matter what its integrity is. Every site should be protected.

Response: MDA understands that some cultural sites and historical resources may have certain significance to native Hawaiian individuals or groups but do not meet the criteria set out in Section 106 and Chapter 6E. MDA will give due consideration to any cultural resources identified in the APE and will point out those that meet the criteria under Section 106 and Chapter 6E and those that do not.

Effects on Historic Properties from the Undertaking

- Comment Summary: Geotechnical testing anywhere on the ridge will affect the heiau. A 30-meter buffer for testing activities is not sufficient.

Response: MDA believes a 30-meter buffer combined with archaeological and cultural monitoring is sufficient to protect the physical features of the heiau. MDA understands that geotechnical testing may impact the mana in the ridge that is a contributing quality of the heiau. However, MDA has determined this impact would not significantly alter the mana as a contributing quality of the heiau's integrity of setting. The geotechnical testing would be temporary and intrusion into the ground would be minimal. MDA notes that many past and ongoing activities have occurred on the ridge, and consulting parties expressed that the mana at the ridge is still intact. MDA does not believe the Phase I Geotechnical Testing will have an adverse effect on the heiau or Pu'u o Pohaku Hāpaina. MDA will invite cultural practitioners from the local area or those with familial/lineal ties to the project area at the beginning of the geotechnical testing to do protocols and prepare the area for the testing.

- Comment Summary: The geotechnical testing would injure the 'aina and affect familial relationships with one's mo'olelo (personal and collective history) and mo'oka'auhau (genealogy), which are embodied in this eligible traditional cultural landscape.

Response: The proposed Phase I Geotechnical Testing would be a discrete, short-term event that would be minimally invasive (ten 4-inch diameter borings and three 12-inch diameter borings in an 89-acre area). MDA is working with the consulting parties to identify a cultural monitor that has lineal ties to the area or at a minimum is familiar with the area. MDA is considering the feasibility of inviting additional people with lineal ties and cultural practitioners to observe the work. MDA is also implementing measures suggested by consulting parties to minimize the disturbance to the land, including returning soils to boring locations after analysis (to the extent practicable).

Comments Outside of Section 106 and Chapter 6E Reviews

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a. **Iwi Kupuna**

- **Comment Summary:** Native Hawaiians do not need to tell MDA where the iwi are. MDA only needs to understand that the undertaking will disrupt the iwi.

Response: MDA understands that the locations of iwi are sensitive and consulting parties may not want to share this information. MDA only requests this information so that burial sites can be avoided. Some consulting parties have stated that iwi are present in the area, but have declined to provide locations of the remains. At this time, no burial sites have been specifically located in the APE and none were identified as part of the literature review for the AIS. MDA will conduct archaeological and cultural monitoring of the geotechnical testing. If any burials are encountered during testing, the testing activities would immediately cease, the remains would be protected from further disturbance, and MDA would follow applicable state and federal laws.

b. **DLNR Permit**

- **Comment Summary:** MDA has not been consulting in good faith because they already have a permit to conduct the geotechnical testing. Why is MDA bothering to consult with native Hawaiians if they already have the permit?

Response: Since part of the APE is on State managed land, the DLNR requires MDA to receive a special permit to enter and use the land. The DLNR granted MDA a special permit on June 6th, 2018 to conduct surveys to support the siting process and cultural and biological studies associated the EIS for the HDR-H project. A copy of the permit can be found on MDA's project website at <https://www.mda.mil>.

The special use permit authorizes MDA to gain access to the site to conduct "non-ground disturbing" activities, such as the AIS. In meetings with the SHPD in June, it was determined the permit issued by DLNR on June 1, 2018 was sufficient to conduct the AIS; however, MDA was not granted permission to conduct the geotechnical testing until consultations are complete and the SHPD issues a finding of no adverse effects on historic properties. MDA is still working with SHPD to gain authorization for the geotechnical testing.

MDA's purpose for consulting with native Hawaiians has been to better understand the traditional significance of sites in the APE and determine whether the Phase I Geotechnical Testing would adversely affect historic properties of traditional cultural or religious significance. MDA is also consulting to develop protective measures including archaeological and cultural monitoring and buffers around the heiau and Pu'u o Pohaku Hāpaina.

c. **Access**

- **Comment Summary:** Native Hawaiians have a hard enough time accessing the project area, even for gathering or religious purposes. The HDR-H project will take land away

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from native Hawaiians and further limit people's access to the area. Land is everything to native Hawaiians.

Response: MDA will consider the potential impacts of the HDR-H project on access and the loss of state land when conducting consultation for that undertaking. Because of the temporary and short term nature of the Phase I Geotechnical Testing, access will not be substantively affected. MDA heard that processes and procedures for obtaining permits for accessing the ridge and the heiau may be confusing or difficult. MDA will bring this to DOFAW's attention and recommend they clarify their permitting/access procedures.

d. Land Issues

- Comment Summary: Several participants commented on the status of the lands proposed for the undertaking. Some stated the lands are ceded lands managed by DLNR in the public trust. Others stated the lands are Hawaiian Homestead Land. Another commenter suggested there are political issues surrounding the status of the land.

Response: MDA has consulted with the Department of Hawaiian Homelands, which stated in a letter dated July 25, 2018 that the Department does not anticipate any impacts on their lands or beneficiaries from the proposed geotechnical testing. MDA continues to consult with Office of Hawaiian Affairs and discuss with DLNR to confirm the status of the land in the APE. MDA is aware the lands in the APE are ceded lands and that, as such, they are for the general benefit of Native Hawaiians.

e. Hunting and Gathering

- Comment Summary: The project area is an important area for hunting (gathering). Native hunting traditions are not a game and are critical to maintaining cultural identity. A loss of hunting areas would force native Hawaiians to become more westernized. Native Hawaiians want to keep their gathering traditions alive.

Response: MDA will address impacts of the proposed HDR-H project on hunting and gathering in the EIS and related consultation. MDA does not anticipate that the Phase I Geotechnical Testing will substantially affect hunting as testing activities will be short-term.

- Comment Summary: The geotechnical testing and HDR-H project will affect native vegetation in the area – vegetation that could be eaten, used for medicine, or used for adornment. Some of this vegetation does not exist anywhere else.

Response: MDA is not aware of any sensitive vegetation in the Phase I Geotechnical Testing APE. However, MDA will seek a cultural monitor, if possible, that is familiar with plants that have traditional uses so that these can be avoided during testing. MDA will later conduct biological surveys in the proposed HDR-H project area and analyze

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potential impacts on vegetation, wildlife, and threatened and endangered species in the EIS.

f. Health Impacts

- **Comment Summary:** MDA needs to consider the potential health effects of the HDR-H project.

Response: MDA will analyze potential health and safety impacts of the proposed HDR-H in the EIS.

g. NEPA Analysis and Cumulative Impacts

- **Comment Summary:** The comments made to MDA during this geotechnical testing consultation need to be considered in the NEPA process for the HDR-H. The NEPA analysis also needs to address cumulative impacts. MDA and local communities need to understand the total impacts of the radar combined with other activities up there, such as the antenna ("golf balls"). The analysis should not ignore what is already up there because "it already went under analysis." The combination may say that this is not a good place for the radar.
- **Response:** MDA will consider all comments made during the Phase I Geotechnical Testing consultation when conducting the NEPA analysis and Section 106/Chapter 6E consultations for the HDR-H. The same team will be working on all of these aspects. MDA will analyze the potential for cumulative impacts in the EIS.

h. Local Knowledge and Protocols

- **Comment Summary:** MDA should give preference to information from local practitioners and lineal descendants. MDA also needs to know that local cultural protocols may differ from other areas and are more appropriate here.

Response: MDA must consult with all Native Hawaiian Organizations and other consulting parties that have a demonstrated interest in cultural and historic preservation matters in the APE. This is to ensure that people who may have had ties to the area in the past still have a voice. However, MDA also understands that those with lineal ties or cultural practitioners from the area may have unique knowledge or understanding. MDA is working with consulting parties to identify one or more cultural monitors that have cultural or lineal ties to the area or at a minimum are familiar with the area so that appropriate cultural protocols are implemented.

i. Consultation on Geotechnical Testing at Kahuku Training Area

- **Comment Summary:** When consulting on geotechnical testing proposed at Kahuku Training Area, MDA should give a short presentation about the activity at the North Shore Neighborhood Board meeting.

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- Response: MDA will take this comment into consideration. MDA intends to attend neighborhood board meetings during the EIS process for the proposed HDR-H and may give announcements and/or presentations about that project and related actions as appropriate

- j. **Effects of the HDR-H Project on Moka'ena Heiau**
- Comment Summary: The HDR-H project is the same as the original purpose of the Moka'ena Heiau – to provide early warning of an attack. The only difference is that we are in the 21st century. Hawai'i would not be under threat of attack if it wasn't for the U.S. military presence. However, the military isn't going to leave and so we must work together to make sure the people and place are protected. What MDA proposes to do has significance, but needs to be done appropriately.

- Response: Based on this comment, MDA understands that the proposed HDR-H project may be consistent with the original purpose of the heiau. However, MDA notes that the heiau may have additional significance beyond this purpose. MDA will consider the effects of the proposed HDR-H project on all aspects of the heiau during the Section 106 and Chapter 6E review process.